

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Smyth, Washington
STREAM NAME: South Fork Holston River
HYDROLOGIC UNIT: 06010102
TMDL ID: VAS-001R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 8.34 - Miles
INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Rowland Creek confluence
RIVER MILE: 98.31
LATITUDE: 36.76889 **LONGITUDE:** -81.57528

DOWNSTREAM LIMIT:

DESCRIPTION: Grosses Creek confluence
RIVER MILE: 89.97
LATITUDE: 36.74361 **LONGITUDE:** -81.68806

This segment of South Fork Holston River is between Rowland Creek, just east of Thomas Bridge, and Grosses Creek, at Loves Mill. The community of St. Claire Bottom lies within this segment of the river. Route 650 parallels this segment.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Total Fecal Coliform

There are both ambient water quality and biological monitoring stations at 6CSFH097.42. The biologist rate this site as a moderately impaired station. There were 9 bacteria violations in 53 samples. An ambient station at 6CSFH093.01 has 4 violations of 10 samples for bacteria. This section is also a 'Water of Concern' for exceedances found from total phosphorus (TP) data. These results are reported as an 'Observed Effect' in the 2004 Integrated Report.

IMPAIRMENT SOURCE: Unknown, Unknown

The sources are unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Smyth
STREAM NAME: South Fork Holston River
HYDROLOGIC UNIT: 06010102
TMDL ID: VAS-001R-02
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 9.37 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Headwaters
RIVER MILE: 107.41
LATITUDE: 36.76440 **LONGITUDE:** -81.37890

DOWNSTREAM LIMIT:

DESCRIPTION: Barton Creek confluence
RIVER MILE: 116.78
LATITUDE: 36.75940 **LONGITUDE:** -81.50480

This segment begins in the headwaters and extends to Barton Creek. The river flows along Route 670 and through the communities of Sugar Grove, Roberts Mill, Teas and Quebec in Smyth County.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

There is an ambient water quality monitoring station at 6CSFH110.45 with 6 bacteria violations out of 10 samples.

IMPAIRMENT SOURCE: Unknown

The sources are unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Washington
STREAM NAME: South Fork Holston River
HYDROLOGIC UNIT: 06010102
TMDL ID: VAS-O02R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 13.58 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Rush Creek confluence
RIVER MILE: 87.32
LATITUDE: 36.71620 **LONGITUDE:** -81.74950

DOWNSTREAM LIMIT:

DESCRIPTION: Backwaters of South Holston Lake
RIVER MILE: 73.74
LATITUDE: 36.65330 **LONGITUDE:** -81.88760

This segment begins at the Rush Creek confluence just south of Friendship at the Route 733 bridge. The end of the segment is at the backwaters of South Holston Lake. This segment flows parallel to Route 91 to the west and Route 605 to the east. The communities of Groseclose Corner and Drowning Ford Station are within the watershed.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

There is an ambient water quality monitoring station at 6CSFH75.61 that has 7 bacteria violations out of 54 samples. This section is also a 'Water of Concern' for benthic macroinvertebrate bioassessment data. These results are reported as an 'Observed Effect' in the 2004 Integrated Report.

IMPAIRMENT SOURCE: Unknown

The sources are unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Smyth
STREAM NAME: Middle Fork Holston River
HYDROLOGIC UNIT: 06010102
TMDL ID: VAS-O03R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 4.15 - Miles
INITIAL LISTING: 2002
TMDL SCHEDULE: 2014
UPSTREAM LIMIT:

DESCRIPTION: Dutton Branch confluence
RIVER MILE: 54.88
LATITUDE: 36.88944
LONGITUDE: -81.34639

DOWNSTREAM LIMIT:

DESCRIPTION: Snaveley Branch confluence
RIVER MILE: 50.73
LATITUDE: 36.87472
LONGITUDE: -81.40417

This Middle Fork Holston River segment is defined upstream by its confluence with Dutton Branch in Groseclose and downstream by the mainstem confluence with Snaveley Branch. This segment is in Smyth County and is very close to the headwaters of Middle Fork Holston River. This segment is parallel to Route 11.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

An ambient monitoring station, 6CMFH053.36, has 8 of 43 samples exceeding the fecal coliform standard.

IMPAIRMENT SOURCE: NPS - Agriculture/Urban

Increasing development at the Interstate exit in this reach may be the source of the fecal coliform violations. There is also agricultural land uses in this reach. This site was listed in Part 4 on the 1998-303(d) Report .

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Smyth
STREAM NAME: Middle Fork Holston River
HYDROLOGIC UNIT: 06010102
TMDL ID: VAS-O03R-02
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 10.3 - Miles
INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010
UPSTREAM LIMIT:

DESCRIPTION: Snavelly Branch confluence
RIVER MILE: 50.73
LATITUDE: 36.87528 **LONGITUDE:** -81.40417

DOWNSTREAM LIMIT:

DESCRIPTION: Hungry Mother Creek confluence
RIVER MILE: 40.43
LATITUDE: 36.82667 **LONGITUDE:** -81.54222

This Middle Fork Holston River segment is defined upstream by its confluence with Snavelly Branch and downstream by confluence with Hungry Mother Creek in Marion. This segment is in Smyth County and is very close to the headwaters of Middle Fork Holston River. This segment is parallel to Route 11.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

An ambient monitoring station, 6CMFH045.72, has 10 of 44 samples exceeding the fecal coliform standard.

IMPAIRMENT SOURCE: NPS - Agriculture

There are agricultural land uses in this reach.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Smyth
STREAM NAME: Hungry Mother Lake
HYDROLOGIC UNIT: 06010102
TMDL ID: VAS-O04L-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 108 - Acres
INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Hungry Mother Dam headwaters
RIVER MILE: 6.15
LATITUDE: 36.88861 **LONGITUDE:** -81.52167

DOWNSTREAM LIMIT:

DESCRIPTION: Hungry Mother Lake Dam
RIVER MILE: 4.76
LATITUDE: 36.87056 **LONGITUDE:** -81.52333

The lake from its headwaters to the dam is included in this segment.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH

Stations on Hungry Mother Lake include, sediment and fish tissue samples at 6CHUN005.24, lake monitoring stations at 6CHUN004.76, 6CHUN005.24 and 6CHUN006.13. The low DO data was in the bottom layer at station 6CHUN004.76BL and low pH measurements were in the top layer at station 6CHUN006.13. This section is also a 'Water of Concern' for exceedances found from DDT data. These results are reported as an 'Observed Effect' in the 2004 Integrated Report.

IMPAIRMENT SOURCE: Unknown

The source is unknown but may be due to natural lake processes.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Smyth
STREAM NAME: Middle Fork Holston River
HYDROLOGIC UNIT: 06010102
TMDL ID: VAS-O04R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 12.48 - Miles
INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010
UPSTREAM LIMIT:

DESCRIPTION: Hungry Mother Creek confluence
RIVER MILE: 40.43
LATITUDE: 36.82639 **LONGITUDE:** -81.54250

DOWNSTREAM LIMIT:

DESCRIPTION: Sulphur Spring Creek confluence
RIVER MILE: 27.95
LATITUDE: 36.79444 **LONGITUDE:** -81.68500

The entire mainstem of Middle Fork Holston River in this watershed is part of the segment. It extends from Hungry Mother Creek confluence to Sulphur Spring Creek confluence.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform, e. Coli

The ambient monitoring station, 6CMFH033.40, has fecal violations in 15 of 56 samples. A special study station, 6CMFH033.40, had DDT concentrations in fish tissue above the human health screening values. This section is also a 'Water of Concern' for exceedances found from DDT sediment data. These results are reported as an 'Observed Effect' in the 2004 Integrated Report. Biological monitoring station, 6CMFH032.39, was not impaired.

IMPAIRMENT SOURCE: NPS - Agriculture

The source for fecal coliform violations is probably agriculture. This area is in a wide flood plain with agricultural land use activities predominating. It is recommended that a second study be undertaken to determine the extent and source of these pollutants. The threatened pollutant sources is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Washington
STREAM NAME: Middle Fork Holston River
HYDROLOGIC UNIT: 06010102
TMDL ID: VAS-O05R-05
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 6.87 - Miles
INITIAL LISTING: 2002
TMDL SCHEDULE: 2010
UPSTREAM LIMIT:

DESCRIPTION: Byers Creek confluence
RIVER MILE: 17.03
LATITUDE: 36.74083
LONGITUDE: -81.80139

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream of Neff to PWS
RIVER MILE: 10.16
LATITUDE: 36.70194
LONGITUDE: -81.86056

Middle Fork Holston River from Byers Creek confluence downstream to rivermile 12.06 is part of this segment. This includes Mock Mill and Neff communities.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Total Fecal Coliform

A biological monitoring station, 6CMFH011.31 is rated moderately impaired based on three sampling events between 1998 and 2000. An ambient station at 6CMFH013.21 has 8 of 57 fecal coliform violations.

IMPAIRMENT SOURCE: Unknown, NPS - Agriculture

The source is unknown.

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RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Smyth, Washington
STREAM NAME: Middle Fork Holston River
HYDROLOGIC UNIT: 06010102
TMDL ID: VAS-O05R-06
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 10.12 - Miles
INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Sulphur Springs Creek confluence
RIVER MILE: 27.15
LATITUDE: 36.79444 **LONGITUDE:** -81.68500

DOWNSTREAM LIMIT:

DESCRIPTION: Byers Creek confluence
RIVER MILE: 17.03
LATITUDE: 36.73694 **LONGITUDE:** -81.79500

Middle Fork Holston River from Sulphur Spring Creek downstream to Byers Creek confluence. The segment begins west of Chilhowie near Route 107 and crosses the county line.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

An ambient station at 6CMFH026.00 has 19 of 50 fecal coliform violations.

IMPAIRMENT SOURCE: Chilhowie STP

Town of Chilhowie STP is directly above this segment and may be a contributing source to the violations. The plant was upgraded, increasing the flow and improving fecal coliform controls. It began operation in July 2001. While the plant was being upgraded, upsets were observed. The fecal coliform source may also be due to agriculture land uses.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Washington
STREAM NAME: South Fork Holston Lake
HYDROLOGIC UNIT: 06010102
TMDL ID: VAS-O06L-00
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 1810 - Acres
INITIAL LISTING: 2002
TMDL SCHEDULE: 2014
UPSTREAM LIMIT:

DESCRIPTION: Upper End of Lake
RIVER MILE: 72.30
LATITUDE: 36.65472
LONGITUDE: -81.90361

DOWNSTREAM LIMIT:

DESCRIPTION: Tennessee State Line
RIVER MILE: 62.85
LATITUDE: 36.59472
LONGITUDE: -82.01194

The lake segment includes the upper end of the lake to the Tennessee State Line. The lake begins above the confluence of South Fork and Middle Fork Holston Rivers.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen

Lake monitoring stations are 6CSFH062.93, 6CSFH066.16 and 6CSFH070.80. At station 6CSFH066.16, aquatic life use is not supported due to low dissolved oxygen in 70 of 119 measurements..

IMPAIRMENT SOURCE: Natural Conditions

The dissolved oxygen violations in the bottom layer of the lake are probably due to anaerobic conditions that occur in lake bottoms.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Washington
STREAM NAME: Wolf Creek
HYDROLOGIC UNIT: 06010102
TMDL ID: VAS-O06R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 6.69 - Miles
INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Town Creek confluence
RIVER MILE: 7.66
LATITUDE: 36.68583 **LONGITUDE:** -81.98083

DOWNSTREAM LIMIT:

DESCRIPTION: backwaters South Holston Lake
RIVER MILE: 0.97
LATITUDE: 36.62639 **LONGITUDE:** -81.98306

The segment extends from the confluence with Town Creek, just south of Abingdon, to the the backwaters of South Holston Lake. Milage has been adjust downwards by about 1 mile in 2004 to reflect an NHD correction.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Total Fecal Coliform (2004)

Biological sampling in this reach, 6CWLF004.10 is moderately impaired. At station 6CWLF001.18, there were 6 bacteria violations in 18 samples. This section is also a 'Water of Concern' for exceedances found from PCB data. These results are reported as an 'Observed Effect' in the 2004 Integrated Report.

IMPAIRMENT SOURCE: NPS - Agriculture/Urban, Animal Feeding Operations, Residential Districts

The source of benthic impairment may be agricultural and urban nonpoint sources. Bacteria exceedences may be due to the same sources.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Bristol, Washington
STREAM NAME: Beaver Creek
HYDROLOGIC UNIT: 06010102
TMDL ID: VAS-O07R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 13.46 - Miles
INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2004

UPSTREAM LIMIT:

DESCRIPTION: Route 611 Bridge
RIVER MILE: 28.73
LATITUDE: 36.70917 **LONGITUDE:** -82.04500

DOWNSTREAM LIMIT:

DESCRIPTION: Tennessee State line
RIVER MILE: 15.27
LATITUDE: 36.59472 **LONGITUDE:** -82.18583

The segment extends from the Route 611 bridge near the headwaters of Beaver Creek to the state line. Beaver Creek flows through the City of Bristol. Mileage changes from 1998 list are due to NHD corrections as to the location of the upstream point.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting, Fish Consumption - Not Supporting (2004)

IMPAIRMENT CAUSE: Total Fecal Coliform, General Standard (Benthic, lead), Fish Tissue (PCB)

Biological station, 6CBEV023.99 is moderately impaired. The habitat assessment is an observed effect in ADB segment BEV02A94. Sediment analysis at 6CBEV015.27 indicates that lead exceeds the ER-M guideline value. EPA added Beaver Creek to the 1998 TMDL list because of lead. During TMDL study in this watershed, ambient water quality monitoring stations had bacteria violations. Analysis showed 20 of 25 samples at 6CBEV015.27 violated the bacteria standard, 8 of 9 samples at 6CBEV015.62, 3 of 9 samples at 6CBEV016.59, 6 of 9 samples at 6CBEV017.15, 3 of 9 samples at 6CBEV017.96, 5 of 9 at 6CBEV019.21, 5 of 15 at 6CBEV020.82, 13 of 24 at 6CBEV020.86, and 5 of 9 at 6CBEV022.29

IMPAIRMENT SOURCE: NPS - Urban, NPS - Agriculture

Beaver Creek flows through an intense agricultural area as well as being an urban stream as it crosses the state line. Both of these land uses contribute to water quality impacts. The TMDL study for Beaver Creek impairments is underway and due to be completed in April 2004.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Smyth
STREAM NAME: Lick Creek
HYDROLOGIC UNIT: 06010101
TMDL ID: VAS-O09R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 5.63 - Miles
INITIAL LISTING: 2002
TMDL SCHEDULE: 2014
UPSTREAM LIMIT:

DESCRIPTION: Lynn Camp Creek confluence

RIVER MILE: 5.63

LATITUDE: 36.98944

LONGITUDE: -81.43417

DOWNSTREAM LIMIT:

DESCRIPTION: North Fork Holston River confluence

RIVER MILE: 0.00

LATITUDE: 36.96083

LONGITUDE: -81.49056

Lick Creek is a tributary to North Fork Holston River. This segment extends from its confluence Lynn Camp Creek to North Fork Holston River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Total Fecal Coliform

A biological monitoring site, 6CLIB003.64 was rated moderately impaired using RPB II protocol. An ambient water quality monitoring station at 6CLIB000.08 has 2 bacteria violations in 9 samples.

IMPAIRMENT SOURCE: Unknown, Animal Feeding Operations - NPS

This watershed has a potential for agricultural impacts as well as silvacultural impacts. Sources of benthic impacts are unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Smyth
STREAM NAME: North Fork Holston River
HYDROLOGIC UNIT: 06010101
TMDL ID: VAS-O10R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 1.84 - Miles
INITIAL LISTING: 1994 **TMDL SCHEDULE:** 2006

UPSTREAM LIMIT:

DESCRIPTION: Saltville above Olin Matheson Plant site
RIVER MILE: 85.4
LATITUDE: 36.89083 **LONGITUDE:** -81.74944

DOWNSTREAM LIMIT:

DESCRIPTION: Robertson Branch confluence
RIVER MILE: 83.56
LATITUDE: 36.88667 **LONGITUDE:** -81.77000

This segment of the mainstem of North Fork Holston River begins in Saltville and ends at the confluence of Robertson Branch, which is the watershed boundary. The segment brackets the closed Olin Matheson Plant.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: VDH Health Advisory (Mercury)

Mercury contamination of the fish tissue in North Fork Holston River prior to 1972 led to a ban on fish consumption by the Virginia Health Department. The ban extends downstream for 80.4 miles, through watersheds; VAS-O11R, VAS-O12R, and VAS-O13R. A sediment sample at 6CNFH097.67 had DDT.

IMPAIRMENT SOURCE: Olin Matheson Plant Site

The Olin Matheson Plant site is the mercury source. In 1982 actions to cleanup mercury contamination were undertaken by Olin at the direction of Virginia Agencies. EPA and Olin are collaborating on mitigation/control of nonpoint source runoff at the site.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Bland, Tazewell
STREAM NAME: Laurel Creek
HYDROLOGIC UNIT: 06010101
TMDL ID: VAS-O10R-02
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 6.16 - Miles
INITIAL LISTING: 2002
TMDL SCHEDULE: 2014
UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 20.50

LATITUDE: 37.02750

LONGITUDE: -81.44028

DOWNSTREAM LIMIT:

DESCRIPTION: Route 16 Bridge

RIVER MILE: 14.34

LATITUDE: 37.01389

LONGITUDE: -81.52806

This segment of Laurel Creek extends from headwaters to Route 16 Bridge in Tazewell County. The segment is in the Jefferson National Forest.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreational Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Total Fecal Coliform (2004)

The biological station, 6CLAE018.29, was rated as moderately impaired. In 2004, there is no more data to assess therefore it remains on the TMDL list, however the mileage changed to correct 2002 error which included Punch and Judy Creek. An ambient water quality monitoring station at 6CLAE014.52 has 2 bacteria violations in 9 samples.

IMPAIRMENT SOURCE: Unknown, Unknown

This watershed is within the Jefferson National Forest. Silvicultural activities are the predominate land use.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Smyth, Tazewell
STREAM NAME: Laurel Creek
HYDROLOGIC UNIT: 06010101
TMDL ID: VAS-O10R-05
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 6.41 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Tumbling Creek confluence
RIVER MILE: 6.41
LATITUDE: 36.97050 **LONGITUDE:** -81.62550

DOWNSTREAM LIMIT:

DESCRIPTION: North Fork Holston River confluence
RIVER MILE: 0.00
LATITUDE: 36.91850 **LONGITUDE:** -81.67350

This segment of Laurel Creek extends from Tumbling Creek confluence, below Tannersville, to downstream confluence with North Fork Holston River. This segment of Laurel Creek parallels Route 91 from Broadford to Tannersville.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

The biological station, 6CLAE001.68, was rated as slightly impaired based on visits conducted between 1995 and 1998.

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Washington
STREAM NAME: Hidden Valley Lake
HYDROLOGIC UNIT: 06010101
TMDL ID: VAS-O11L-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 90 - Acres
INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014
UPSTREAM LIMIT:

DESCRIPTION: headwaters

RIVER MILE: 11.81

LATITUDE: 36.96944

LONGITUDE: -81.79028

DOWNSTREAM LIMIT:

DESCRIPTION: Hidden Valley Lake Dam

RIVER MILE: 11.89

LATITUDE: 36.95500

LONGITUDE: -81.81333

Hidden Valley Lake is in Brumley Creek near the Russell and Washington County line off of Route 19.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen

A station on Brumley Creek at 6CBRU010.91 has 4 of 8 DO samples lower than the standard.

IMPAIRMENT SOURCE: Natural Conditions

The source is due to natural lake processes.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Washington
STREAM NAME: North Fork Holston River
HYDROLOGIC UNIT: 06010101
TMDL ID: VAS-O11R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 1.9 - Miles
INITIAL LISTING: 1994 **TMDL SCHEDULE:** 2006

UPSTREAM LIMIT:

DESCRIPTION: Brumley Creek confluence
RIVER MILE: 64.13
LATITUDE: 36.79167 **LONGITUDE:** -82.01611

DOWNSTREAM LIMIT:

DESCRIPTION: Cabin Creek confluence
RIVER MILE: 62.23
LATITUDE: 36.78250 **LONGITUDE:** -82.03917

This segment is the mainstem of North Fork Holston River, extending from Brumley Creek to Cabin Creek, near Brumley Gap.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: Fish Tissue - Mercury

Mercury contamination of the fish tissue in North Fork Holston River prior to 1982 led to a ban on fish consumption by the Virginia Health Department. The ban extends downstream for 80.4 miles, through watersheds; VAS-O11R, VAS-O12R, and VAS-O13R. This segment is also threatened due to sediments detected above the guideline values for PCP and Mercury.

IMPAIRMENT SOURCE: Olin Matheson Plant Site

The Olin Matheson Plant site is the mercury source. In 1982 actions to cleanup mercury contamination were undertaken by Olin at the direction of Virginia Agencies. EPA and Olin are collaborating on mitigation/control of nonpoint source runoff at the site. Mercury in the sediments as well as Mercury in fish tissue is a result of this plant. The PCP source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Washington
STREAM NAME: North Fork Holston River
HYDROLOGIC UNIT: 06010101
TMDL ID: VAS-O11R-02
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 14.64 - Miles
INITIAL LISTING: 1994 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Tumbling Creek confluence
RIVER MILE: 78.77
LATITUDE: 36.86361 **LONGITUDE:** -81.83778

DOWNSTREAM LIMIT:

DESCRIPTION: Brumley Creek confluence
RIVER MILE: 64.13
LATITUDE: 36.79167 **LONGITUDE:** -82.01611

The mainstem of North Fork Holston River from Tumbling Creek to Brumley Creek is in this segment. This segment is included in a Fish Consumption segment which extends from Saltville to the Tennessee state line.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: VDH Health Advisory (Mercury)

Mercury contamination of the fish tissue from Olin in North Fork Holston River prior to 1982 led to a ban on fish consumption by the Virginia Health Department. The ban extends downstream for 80.4 miles, through watersheds; VAS-O11R, VAS-O12R, and VAS-O13R.

IMPAIRMENT SOURCE: Olin Matheson Plant Site

The Olin Matheson Plant site is the mercury source. In 1982 actions to cleanup mercury contamination were undertaken by Olin at the direction of Virginia Agencies. EPA and Olin are collaborating on mitigation/control of nonpoint source runoff at the site. Mercury in the sediments as well as Mercury in fish tissue is a result of this plant.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Smyth, Washington
STREAM NAME: North Fork Holston River
HYDROLOGIC UNIT: 06010101
TMDL ID: VAS-O11R-03
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 4.79 - Miles
INITIAL LISTING: 1994 **TMDL SCHEDULE:** 2006

UPSTREAM LIMIT:

DESCRIPTION: Robertson Branch confluence
RIVER MILE: 83.56
LATITUDE: 36.88667 **LONGITUDE:** -81.77000

DOWNSTREAM LIMIT:

DESCRIPTION: Tumbling Creek confluence
RIVER MILE: 78.77
LATITUDE: 36.86361 **LONGITUDE:** -81.83778

This segment is the mainstem of North Fork Holston River, from Robertson Branch in Saltville, to Tumbling Creek. Mileage has been decreased because of the NHD data layer.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: VDH Health Advisory (Mercury, PCB), General Standard (Benthic)

Mercury contamination of the fish tissue in North Fork Holston River prior to 1982 led to a ban on fish consumption by the Virginia Health Department. The ban extends downstream for 80.4 miles, through watersheds; VAS-O11R, VAS-O12R, and VAS-O13R. The partially supporting aquatic life use designation is the result of a biological monitoring station, 6CNFH080.45, rated moderately impaired last sampled in 1993. No benthic data fell within the 2002 assessment window and thus is not listed as impaired for benthics in 2002-305b report. This section is also a 'Water of Concern' for exceedances found from mercury in sediment samples at 6CNFH080.43. PCB was detected in fish tissue. These results are reported as an 'Observed Effect' in the 2004 Integrated Report.

IMPAIRMENT SOURCE: Olin Matheson Plant Site, Point Source

The Olin Matheson Plant site is the mercury source. In 1982 actions to cleanup mercury contamination were undertaken by Olin at the direction of Virginia Agencies. EPA and Olin are collaborating on mitigation/control of nonpoint source runoff at the site. Mercury in the sediments as well as Mercury in fish tissue is a result of this source. The benthic impairment source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Scott, Washington
STREAM NAME: North Fork Holston River
HYDROLOGIC UNIT: 06010101
TMDL ID: VAS-O12R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 34.29 - Miles
INITIAL LISTING: 1994 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Cabin Creek confluence
RIVER MILE: 62.23
LATITUDE: 36.78250 **LONGITUDE:** -82.03917

DOWNSTREAM LIMIT:

DESCRIPTION: Cove Creek confluence
RIVER MILE: 27.94
LATITUDE: 36.65278 **LONGITUDE:** -82.38972

This segment is the mainstem of North Fork Holston River, from Cabin Creek to confluence with Abrams Creek. The segment extends the entire length of the waterbody and passes near Mongle Spring, Holston, Alum Wells, Pine Grove to Mendota. This is part of the 80.4 mile Fish Consumption segment which extends from Saltville to Tennessee State Line.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: VDH Health Advisory (Mercury)

Mercury contamination of the fish tissue in North Fork Holston River prior to 1972 led to a ban on fish consumption by the Virginia Health Department. The ban extends downstream for 80.4 miles, through watersheds; VAS-O10R, VAS-O11R, and VAS-O13R. This section is also a 'Water of Concern' for exceedances found from mercury, DDT and PCP sediment data. These results are reported as an 'Observed Effect' in the 2004 Integrated Report. Fish consumption is not supporting due to mercury exceedences in fish tissue at station, 6CNFH039.18 (ADB ID NFH01C02). An ambient station at 6CNFH059.65 (ADB ID NFH02A00) and 6CNFH060.93 benthic station in this reach had sediment hits for Mercury, DDT and PCP.

IMPAIRMENT SOURCE: Olin Matheson Plant Site

The Olin Matheson Plant site is the mercury source. In 1982 actions to cleanup mercury contamination were undertaken by Olin at the direction of Virginia Agencies. EPA and Olin are collaborating on mitigation/control of nonpoint source runoff. Mercury in the sediments and fish tissue is from this plant.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Scott
STREAM NAME: North Fork Holston River
HYDROLOGIC UNIT: 06010101
TMDL ID: VAS-O13R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 5.81 - Miles
INITIAL LISTING: 1994 **TMDL SCHEDULE:** 2006
UPSTREAM LIMIT:

DESCRIPTION: Big Moccasin Creek confluence
RIVER MILE: 9.55
LATITUDE: 36.60889 **LONGITUDE:** -82.54444

DOWNSTREAM LIMIT:

DESCRIPTION: Tennessee State Line
RIVER MILE: 3.74
LATITUDE: 36.59361 **LONGITUDE:** -82.60917

This segment is the mainstem of North Fork Holston River, from Big Moccasin Creek confluence to the Tennessee State line. This portion of North Fork Holston River is south of Weber City and parallel to Route 714.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting, Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: VDH Health Advisory (Mercury), Total Fecal Coliform, General Standard (Benthic)

Mercury contamination of the fish tissue in North Fork Holston River prior to 1972 led to a ban on fish consumption by the Virginia Health Department. The ban extends downstream for 80.4 miles, through watersheds; VAS-O11R, VAS-O12R, and VAS-O13R. Fecal coliform samples at an ambient station, 6CNFH008.78, exceed water quality standards in 8 of 52 samples. A benthic station at 6CNFH007.78 is rated moderately impaired. Mercury is considered an observed effect in this segment.

IMPAIRMENT SOURCE: Olin Matheson Plant Site, NPS - Urban, Unknown

The Olin Matheson Plant site is the mercury source. In 1982 actions to cleanup mercury contamination were undertaken by Olin at the direction of Virginia Agencies. EPA and Olin are collaborating on mitigation/control of nonpoint source runoff at the site. Fecal coliform violations and the benthic impairment are probably due to urban nonpoint sources.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Scott
STREAM NAME: North Fork Holston River
HYDROLOGIC UNIT: 06010101
TMDL ID: VAS-O13R-02
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 18.39 - Miles
INITIAL LISTING: 1994 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Cove Creek confluence
RIVER MILE: 27.94
LATITUDE: 36.65278 **LONGITUDE:** -82.38944

DOWNSTREAM LIMIT:

DESCRIPTION: Big Moccasin Creek confluence
RIVER MILE: 9.55
LATITUDE: 36.60889 **LONGITUDE:** -82.54444

This segment is the mainstem of North Fork Holston River, from Abrams Creek to Big Moccasin Creek confluence, near Gate City.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: VDH Health Advisory (Mercury)

Mercury contamination of the fish tissue in North Fork Holston River prior to 1972 led to a ban on fish consumption by the Virginia Health Department. The ban extends downstream for 80.4 miles, through watersheds; VAS-O11R, VAS-O12R, and VAS-O13R.

IMPAIRMENT SOURCE: Olin Matheson Plant Site

The Olin Matheson Plant site is the mercury source. In 1982 actions to cleanup mercury contamination were undertaken by Olin at the direction of Virginia Agencies. EPA and Olin are collaborating on mitigation/control of nonpoint source runoff at the site.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Scott
STREAM NAME: Big Moccasin Creek
HYDROLOGIC UNIT: 06010101
TMDL ID: VAS-O14R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 3.49 - Miles
INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Red Hill Branch confluence
RIVER MILE: 3.49
LATITUDE: 36.64278 **LONGITUDE:** -82.56500

DOWNSTREAM LIMIT:

DESCRIPTION: North Fork Holston confluence
RIVER MILE: 0.00
LATITUDE: 36.60889 **LONGITUDE:** -82.54444

The segment is on Big Moccasin Creek between Red Hill Branch confluence and North Fork Holston River confluence. The stream ends in Gate City.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

Ambient water quality monitoring station, 6CBMC002.90, had fecal coliform violations in 3 of 19 samples.

IMPAIRMENT SOURCE: NPS - Agriculture/Urban

Agriculture and pasture are the predominant land uses in the watershed.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Tazewell
STREAM NAME: Clinch River
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P01R-01
ASSESSMENT CATEGORY: 5D
SEGMENT SIZE: 5.5 - Miles
INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Lincolnshire Branch confluence
RIVER MILE: 350.60
LATITUDE: 37.13333 **LONGITUDE:** -81.50083

DOWNSTREAM LIMIT:

DESCRIPTION: Plum Creek confluence
RIVER MILE: 345.10
LATITUDE: 37.12417 **LONGITUDE:** -81.56750

The segment includes the mainstem of Clinch River from the Lincolnshire Branch confluence to the Plum Creek confluence. The station is at River Jack which is on Rt. 16 downstream of Tazewell. Clinch River flows through part of the Town of Tazewell.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Total Fecal Coliform (2004)

Biological monitoring efforts, 6BCLN346.80, in June 1997 indicate moderate impairment. The biologist noted that aquatic habitat is impacted due to heavy siltation. Ambient water quality monitoring stations at 6BCLN346.60 and 6BCLN 348.00 had 3 bacteria violations of 9 samples and 2 violations of 9 samples respectively. This section is also a 'Water of Concern' for exceedances found from total phosphorus (TP) data. These results are reported as an 'Observed Effect' in the 2004 Integrated Report.

IMPAIRMENT SOURCE: NPS - Urban, NPS - Agricultural

The land use upstream of this station is urban so that destabilization of the streambank may be the source of benthic impairments. Tetrtech developed a sediment TMDL for Benthic impairments in April 2004 the benthic TMDL was EPA approved. A toxicity study for this segment revealed no problems. The source of fecal violations is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Tazewell
STREAM NAME: Plum Creek
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P01R-02
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 5.07 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016
UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 2.31

LATITUDE: 37.09890

LONGITUDE: -81.56310

DOWNSTREAM LIMIT:

DESCRIPTION: Clinch River confluence

RIVER MILE: 0.00

LATITUDE: 37.12430

LONGITUDE: -81.56770

The segment flows parallel to Route 16 from Frog Level downstream to Pisgah in Tazewell County.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

An ambient water quality monitoring station at 6BPLU000.40 has 4 bacteria violations in 9 samples collected.

IMPAIRMENT SOURCE: Unknown

The source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Tazewell
STREAM NAME: Clinch River
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P02R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 6.02 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Plum Creek confluence
RIVER MILE: 345.10
LATITUDE: 37.12417 **LONGITUDE:** -81.56750

DOWNSTREAM LIMIT:

DESCRIPTION: Pounding Mill Branch confluence
RIVER MILE: 339.08
LATITUDE: 37.11070 **LONGITUDE:** -81.62710

The segment flows parallel to Route 19 from the community of Pisgah to the community of Pounding Mill.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

An ambient water quality monitoring station at 6BCLN339.53 has 6 bacteria violations in 34 samples. This section is also a 'Water of Concern' for exceedances found from total phosphorus (TP) data. These results are reported as an 'Observed Effect' in the 2004 Integrated Report.

IMPAIRMENT SOURCE: NPS - Urban

The source is unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Tazewell
STREAM NAME: Indian Creek
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P02R-02
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 8.86 - Miles
INITIAL LISTING: 2004
TMDL SCHEDULE: 2016
UPSTREAM LIMIT:

DESCRIPTION: Jackson Fork confluence

RIVER MILE: 8.86

LATITUDE: 37.15660

LONGITUDE: -81.70850

DOWNSTREAM LIMIT:

DESCRIPTION: Clinch River confluence

RIVER MILE: 0.00

LATITUDE: 37.08840

LONGITUDE: -81.76870

This segment includes the mainstem of Indian Creek from confluence with Jackson Fork to its confluence with Clinch River just east of Cedar Bluff in Tazewell County.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform, General Standard (Benthic)

An ambient water quality monitoring station at 6BIDI001.49 has 5 bacteria violations in 9 samples. There is a benthic station at 6BIDI003.67 which is moderately impaired based on 1997 and 1998 samples. A second biological monitoring station at 6BIDI010.25 is slightly impaired.

IMPAIRMENT SOURCE: NPS - Urban

The source is unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Tazewell
STREAM NAME: Middle Creek
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P03R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 11 - Miles
INITIAL LISTING: 1998
TMDL SCHEDULE: 2006
UPSTREAM LIMIT:

DESCRIPTION: headwaters

RIVER MILE: 11.01

LATITUDE: 37.20194

LONGITUDE: -81.77250

DOWNSTREAM LIMIT:

DESCRIPTION: Clinch River confluence

RIVER MILE: 0.00

LATITUDE: 37.08806

LONGITUDE: -81.76722

Middle Creek mainstem from its headwaters to its confluence with Clinch River, just to the west of Cedar Bluff, comprises the segment. Route 67 roughly parallels Middle Creek from Richlands north. Its confluence with Clinch River occurs in Cedar Bluff in Tazewell County. The segment may be found on the Jewell Ridge and Richlands topographic maps. Middle Creek flows into Clinch River just upstream of a mussel bed. The mileage increase is a result of NHD files.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

The segment is listed because a biological monitoring station, 6BMID000.20, is severely impaired. The biologist reported, in May 1996, that there was a low density of organisms in the stream.

IMPAIRMENT SOURCE: Resource Extraction

The Middle Creek watershed land use is predominately forested with reclamation of permitted coal sources nearly completed. A TMDL study is underway to determine the source of benthic impairment.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Tazewell
STREAM NAME: Clinch River
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P03R-02
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 3.37 - Miles
INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Raven Doran Raw Water Intake
RIVER MILE: 316.53
LATITUDE: 37.09083 **LONGITUDE:** -81.82167

DOWNSTREAM LIMIT:

DESCRIPTION: Mill Creek confluence
RIVER MILE: 313.16
LATITUDE: 37.08330 **LONGITUDE:** -81.85570

The segment extends from the Raven-Doran raw water intake, just above the Town Hill Creek confluence, to the confluence with Mill Creek at the watershed boundary. Clinch River flows through the communities of Doran and Raven.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

There were fecal coliform violations, 7 out of 43 samples, at station 6BCLN315.11.

IMPAIRMENT SOURCE: NPS - Urban

Fecal violations may be attributed to Urban Nonpoint Sources. The urban area is located directly on the floodplain.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Tazewell
STREAM NAME: Clinch River
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P03R-03
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 5.01 - Miles
INITIAL LISTING: 2004
TMDL SCHEDULE: 2016
UPSTREAM LIMIT:

DESCRIPTION: Middle Creek confluence
RIVER MILE: 321.31
LATITUDE: 37.08840
LONGITUDE: -81.76800

DOWNSTREAM LIMIT:

DESCRIPTION: Raven Doran Raw Water Intake
RIVER MILE: 316.53
LATITUDE: 37.09083
LONGITUDE: -81.81760

The segment begins five miles above the Raven Doran Raw Water intake at the Middle Creek confluence and extends to the intake.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform, e. Coli

There were fecal coliform violations, 3 out of 17 samples, at station 6BCLN321.13.

IMPAIRMENT SOURCE: Municipal Urbanized High Density

Fecal violations may be attributed to Urban Nonpoint Sources. The urban area is located directly on the floodplain.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Russell
STREAM NAME: Lewis Creek
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P04R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 4.84 - Miles
INITIAL LISTING: 1998
TMDL SCHEDULE: 2004
UPSTREAM LIMIT:

DESCRIPTION: Stone Branch confluence

RIVER MILE: 4.84

LATITUDE: 37.03667

LONGITUDE: -81.97556

DOWNSTREAM LIMIT:

DESCRIPTION: Clinch River confluence

RIVER MILE: 0.00

LATITUDE: 36.99222

LONGITUDE: -81.97139

Lewis Creek, from its confluence with Stone Branch to its mouth on the Clinch River comprises the segment. The stream flows through Honaker, parallel to Route 624 and 653 to the Clinch River. The confluence with Clinch River is west of Blackford in Russell County.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

A biological monitoring station, 6BLWS000.90, is moderately impaired based on the results of three Rapid Bioassessment Protocol 2 (RBP2) efforts. A second station was sampled at 6BLWS003.88 and ranked moderately impaired.

IMPAIRMENT SOURCE: NPS - Urban

The source of impairment is urban. Lewis Creek flows through Honaker which has dense development along the streambanks.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Russell
STREAM NAME: Swords Creek
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P04R-02
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 2.9 - Miles
INITIAL LISTING: 2002
TMDL SCHEDULE: 2014
UPSTREAM LIMIT:

DESCRIPTION: Sulphur Spring Branch confluence
RIVER MILE: 2.90
LATITUDE: 37.07028
LONGITUDE: -81.92528

DOWNSTREAM LIMIT:

DESCRIPTION: Clinch River confluence
RIVER MILE: 0.00
LATITUDE: 37.03472
LONGITUDE: -81.91694

This segment of Swords Creek begins at Route 632, at the confluence with Sulphur Spring Branch, flows through Dye, and ends at the confluence with Clinch River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

A biological monitoring station at 6BSWD000.11 is rated moderately impaired.

IMPAIRMENT SOURCE: NPS - Urban

The creek flows through populated areas so that urban nonpoint sources are suspected.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Russell, Tazewell
STREAM NAME: Indian Creek
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P05R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 3.99 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Headwaters
RIVER MILE: 3.99
LATITUDE: 37.00140 **LONGITUDE:** -81.81530

DOWNSTREAM LIMIT:

DESCRIPTION: Little River confluence
RIVER MILE: 0.00
LATITUDE: 37.03100 **LONGITUDE:** -81.79560

This segment includes the stream from its headwaters to the confluence with Little River. It parallels Route 770 with its downstream limit in the community of Wardell.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

There is an ambient water quality monitoring station at 6BIDN000.69 with 5 bacteria violations of 9 samples. Observed effect is total phosphorus in the segment.

IMPAIRMENT SOURCE: Unknown

The source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Tazewell
STREAM NAME: Liberty Creek
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P05R-02
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 2 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Upstream of Liberty
RIVER MILE: 1.4
LATITUDE: 37.06990 **LONGITUDE:** -81.63410

DOWNSTREAM LIMIT:

DESCRIPTION: Spring
RIVER MILE: 3.4
LATITUDE: 37.05060 **LONGITUDE:** -81.65680

This segment includes the stream from the spring just downstream of the Route 608 bridge upstream to confluence with an unnamed tributary two miles upstream. The stream follows Routes 608 and 91 through the community of Liberty.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

There is an ambient water quality monitoring station at 6BLIB001.89 with 5 bacteria violations of 8 samples. This section is also a 'Water of Concern' for exceedances found from total phosphorus (TP) data. These results are reported as an 'Observed Effect' in the 2004 Integrated Report.

IMPAIRMENT SOURCE: Unknown

The source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Russell
STREAM NAME: Little River
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P05R-03
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 13.94 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016
UPSTREAM LIMIT:

DESCRIPTION: Grays Branch confluence
RIVER MILE: 13.9
LATITUDE: 37.04180 **LONGITUDE:** -81.81950

DOWNSTREAM LIMIT:

DESCRIPTION: Clinch River confluence
RIVER MILE: 0.0
LATITUDE: 37.00200 **LONGITUDE:** -81.92660

This segment of Little River begins at Grays Branch, near the Tazewell/Russell County Line and ends at Clinch River. It parallels Route 640 to Route 641.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

There is an ambient water quality monitoring station at 6BLTR000.75 with 3 bacteria violations of 23 samples. Total phosphorus is an observed effect.

IMPAIRMENT SOURCE: Unknown

The source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Tazewell
STREAM NAME: Little River
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P05R-04
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 5.2 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016
UPSTREAM LIMIT:

DESCRIPTION: Above Claypool Hill STP
RIVER MILE: 23.39
LATITUDE: 37.02190 **LONGITUDE:** -81.75130

DOWNSTREAM LIMIT:

DESCRIPTION: Laurel Creek confluence
RIVER MILE: 18.19
LATITUDE: 37.02820 **LONGITUDE:** -81.79170

This segment of Little River begins above the Claypool Hill STP and continues to Laurel Creek confluence just upstream of Wardell.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

There is an ambient water quality monitoring station at 6BLTR018.19 with 2 bacteria violations of 9 samples. This section is also a 'Water of Concern' for exceedances found from total phosphorus (TP) data. These results are reported as an 'Observed Effect' in the 2004 Integrated Report.

IMPAIRMENT SOURCE: Unknown

The source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Tazewell
STREAM NAME: Maiden Spring Creek
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P05R-05
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 6.5 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Foot of Morris Knob
RIVER MILE: 6.5
LATITUDE: 37.03050 **LONGITUDE:** -81.60190

DOWNSTREAM LIMIT:

DESCRIPTION: Little River confluence
RIVER MILE: 0.00
LATITUDE: 37.03760 **LONGITUDE:** -81.67240

This is the lower end of Maiden Spring Creek. The segment begins at an unnamed tributary south of Morris Knob to its confluence with Little River. It parallels Routes 604 and 608.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

There is an ambient water quality monitoring station at 6BMSC001.53 with 2 bacteria violations of 5 samples.

IMPAIRMENT SOURCE: Unknown

The source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Tazewell
STREAM NAME: Maiden Spring Creek
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P05R-06
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 8.56 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016
UPSTREAM LIMIT:

DESCRIPTION: Near headwaters
RIVER MILE: 25.09
LATITUDE: 37.07450 **LONGITUDE:** -81.49270

DOWNSTREAM LIMIT:

DESCRIPTION: Foot of Morris Knob
RIVER MILE: 16.53
LATITUDE: 37.03050 **LONGITUDE:** -81.60190

This segment is near the headwaters of Maiden Spring Creek parallel to Route 602 northwest of Burkes Garden.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

There is an ambient water quality monitoring station at 6BMSC008.98 with 5 bacteria violations of 9 samples. This section is also a 'Water of Concern' for exceedances found from total phosphorus (TP) data. These results are reported as an 'Observed Effect' in the 2004 Integrated Report.

IMPAIRMENT SOURCE: Unknown

The source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Russell
STREAM NAME: Big Cedar Creek
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P06R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 3.89 - Miles
INITIAL LISTING: 2002
TMDL SCHEDULE: 2014
UPSTREAM LIMIT:

DESCRIPTION: Lebanon Raw Water Intake

RIVER MILE: 8.10

LATITUDE: 36.90111

LONGITUDE: -82.03528

DOWNSTREAM LIMIT:

DESCRIPTION: Glade Hollow confluence

RIVER MILE: 4.21

LATITUDE: 36.93611

LONGITUDE: -82.06194

The segment extends from the Lebanon raw water intake to the confluence with stream from Glade Hollow. Big Cedar Creek flows through Lebanon.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Total Fecal Coliform (2004)

The benthic station at 6BBCD004.18 is moderately impaired. An ambient water quality monitoring station at 6BBCD004.18 has 3 bacteria violations in 19 samples.

IMPAIRMENT SOURCE: Unknown, Unknown

The source of impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Russell
STREAM NAME: Clinch River
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P07R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 13.95 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Big Cedar Creek confluence
RIVER MILE: 282.8
LATITUDE: 36.96530 **LONGITUDE:** -82.05260

DOWNSTREAM LIMIT:

DESCRIPTION: Dumps Creek confluence
RIVER MILE: 268.85
LATITUDE: 36.93420 **LONGITUDE:** -82.19800

Clinch River segment begins at its confluence with Big Cedar Creek near the Pinnacles and extends downstream to its confluence with Dumps Creek in Carbo.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

An ambient water quality monitoring station at 6BCLN271.50 has 9 bacteria violations in 52 samples. This section is also a 'Water of Concern' for exceedances found from total phosphorus (TP) data. These results are reported as an 'Observed Effect' in the 2004 Integrated Report.

IMPAIRMENT SOURCE: Unknown

The source of impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Scott
STREAM NAME: Clinch River
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P09R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 6.07 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Little Stony Creek
RIVER MILE: 238.68
LATITUDE: 36.84550 **LONGITUDE:** -82.45270

DOWNSTREAM LIMIT:

DESCRIPTION: Stanton Creek confluence
RIVER MILE: 232.61
LATITUDE: 36.79840 **LONGITUDE:** -82.51850

The segment includes mainstem Clinch River from its confluence with Little Stony Creek above Dungannon to its confluence with Staunton Creek downstream of Grays Island.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

An ambient water quality monitoring station at 6BCLN237.09 has 4 bacteria violation in 37 samples.

IMPAIRMENT SOURCE: Unknown

The source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Russell, Wise
STREAM NAME: Lick Creek
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P10R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 9.48 - Miles
INITIAL LISTING: 1998
TMDL SCHEDULE: 2008
UPSTREAM LIMIT:

DESCRIPTION: Headwaters including Straight Hollow

RIVER MILE: 4.83

LATITUDE: 36.99222

LONGITUDE: -82.26583

DOWNSTREAM LIMIT:

DESCRIPTION: Clinch River confluence

RIVER MILE: 0.00

LATITUDE: 36.90583

LONGITUDE: -82.29861

The segment includes mainstem of Lick Creek from its headwaters, including Straight Hollow tributary, to its confluence with Clinch River near St. Paul. Lick Creek flows through Dante, parallel with Route 63.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Total Fecal Coliform

Biological monitoring on Lick Creek, 6BLCC000.65 and 6BLCC005.99 indicates the stream is severely impaired. Station, 6BLCC004.49 is not impaired and station 6BLCC000.09 is moderately impaired for aquatic life use. The segment is assessed as severely impaired on the lower length and severely impaired on the upper reaches. Ambient water quality monitoring, 6BLCC000.09, has 7 bacteria violations of 18 samples. This section is also a 'Water of Concern' for exceedances found from total phosphorus (TP) data. These results are reported as an 'Observed Effect' in the 2004 Integrated Report.

IMPAIRMENT SOURCE: NPS - Urban, NPS - Septage Disposal

The source is unknown, but urban sources are probably responsible in Dante. Resource extraction takes place here and may degrade stream habitat. Fecal violations are due to failing septic systems and straight pipes along the stream. A new Wastewater Treatment Plant started up in mid-1997. In February 1999, 342 connections had been made to the new plant. This should decrease fecal coliform violations.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Russell
STREAM NAME: Cigarette Hollow
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P10R-02
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 1.08 - Miles
INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2008

UPSTREAM LIMIT:

DESCRIPTION: Headwaters
RIVER MILE: 1.08
LATITUDE: 36.97361 **LONGITUDE:** -82.26556

DOWNSTREAM LIMIT:

DESCRIPTION: Right Fork confluence
RIVER MILE: 0.00
LATITUDE: 36.97694 **LONGITUDE:** -82.28250

The entire Cigarette Hollow stream is included. This tributary confluences with Right Fork which is a tributary to Lick Creek near Dante. Route 63 runs through the community of Dante.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Total Fecal Coliform

Special study data in the 1998 assessment cycle linked this stream to the problems in Lick Creek. Biological monitoring site, 6BLCC000.65, data is severely impaired and ambient station data has fecal violations, 6BLCC000.09 in Lick Creek.

IMPAIRMENT SOURCE: NPS - Urban, NPS - Urban

The source of the impairment is unknown, however stream banks are intensively populated in the community of Dante. The topography offers the only flat land for urban use along the narrow stream floodplain. Another land use in this area is coal mining which may also degrade stream habitat. Fecal violations are probably attributable to the failing septic systems and straight pipes along the stream. This area is constructing collector lines and a new Wastewater Treatment Plant started up in mid-1997. In February 1999, 342 connections had been made to the new plant. This should decrease fecal coliform violations.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Dickenson, Russell
STREAM NAME: Laurel Branch
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P10R-03
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 4.96 - Miles
INITIAL LISTING: 1998
TMDL SCHEDULE: 2008
UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 4.96

LATITUDE: 36.99972

LONGITUDE: -82.30861

DOWNSTREAM LIMIT:

DESCRIPTION: Lick Creek confluence

RIVER MILE: 0.00

LATITUDE: 36.98111

LONGITUDE: -82.30611

The segment includes mainstem of Laurel Branch which confluent with Lick Creek near the community of Dante. Route 63 runs through the community of Dante.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Total Fecal Coliform

Special study data in the 1998 assessment cycle linked this stream to the problems in Lick Creek. Biological monitoring site, 6BLCC000.65, data is severely impaired and ambient station data has fecal violations, 6BLCC000.09 in Lick Creek.

IMPAIRMENT SOURCE: NPS - Urban, NPS - Urban

The source of the impairment is urban nonpoint with intensively populated floodplains in the community of Dante. Another land use in this area is coal mining which may also degrade stream habitat. Fecal violations are attributable to the raw sewage discharges from individual homes and failing septic systems along the stream. A new Wastewater Treatment Plant started up in mid-1997. Collector lines and public sewer system connections have been made to 342 homes in the upper Lick Creek drainage. The fecal violations should decrease as straight pipe discharges are corrected.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Russell
STREAM NAME: Right Fork
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P10R-04
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 2.91 - Miles
INITIAL LISTING: 1998
TMDL SCHEDULE: 2008
UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 2.91

LATITUDE: 36.98944

LONGITUDE: -82.25444

DOWNSTREAM LIMIT:

DESCRIPTION: Lick Creek confluence

RIVER MILE: 0.00

LATITUDE: 36.97722

LONGITUDE: -82.29750

The segment includes mainstem of Right Fork which is a tributary of Lick Creek. It was included in the TMDL list in 1998 as part of the Lick Creek watershed. It confluences with Lick Creek near the community of Dante on Route 63.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Total Fecal Coliform

Special study data in the 1997 on Right Fork Lick Creek showed fecal coliform violations and linked this stream to the problems in Lick Creek. Biological monitoring site, 6BLCC000.65, data is severely impaired and ambient station data has fecal violations, 6BLCC000.09 in Lick Creek.

IMPAIRMENT SOURCE: NPS - Urban, NPS - Urban

The source of the benthic impairment is unknown. Floodplains are intensively populated in the community of Dante. Resource extraction in the watershed may also degrade stream habitat. Fecal violations are attributable to the raw sewage discharges from individual homes and failing septic systems along the stream. A new Wastewater Treatment Plant started up in mid-1997. Collector lines and public sewer system connections have been made to 342 homes in the upper Lick Creek drainage. The fecal violations should decrease as straight pipe discharges are corrected.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Wise
STREAM NAME: Wise Lake
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P11L-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 30 - Acres
INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014
UPSTREAM LIMIT:

DESCRIPTION: Wise Lake headwaters
RIVER MILE: 1.41
LATITUDE: 36.96833 **LONGITUDE:** -82.52333

DOWNSTREAM LIMIT:

DESCRIPTION: Bear Creek (Wise) Dam
RIVER MILE: 0.69
LATITUDE: 36.96833 **LONGITUDE:** -82.53361

The lake is on a tributary to Bear Creek off Route 646, east of Wise, Virginia.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen

A lake monitoring station at 6BXAR000.69 has 2 of 6 samples in the bottom layer with low DO.

IMPAIRMENT SOURCE: Natural Conditions

The source is due to natural lake processes.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Wise
STREAM NAME: Guest River
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P11R-03
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 3.03 - Miles
INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2004

UPSTREAM LIMIT:

DESCRIPTION: Bad Branch confluence
RIVER MILE: 7.10
LATITUDE: 36.92500 **LONGITUDE:** -82.46222

DOWNSTREAM LIMIT:

DESCRIPTION: Crab Orchard Creek confluence
RIVER MILE: 4.07
LATITUDE: 36.91139 **LONGITUDE:** -82.43611

The segment includes the mainstem of Guest River from its confluence with Bad Branch to the confluence with Crab Orchard Creek. This segment flows through the town of Coeburn. The tributaries that were associated with the 1998 TMDL have been listed separately for clarity.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs, Mercury, Arsenic

Ambient Water Quality Station 6BGUE006.5 has fecal coliform data showing 0 of 13 violations this assessment cycle. Samples taken by TVA in 1996 and 1997 indicated that Guest River and many of its tributaries violate the water quality standards for fecal coliform. This is part of a 1998 TMDL fecal coliform segment. At special station 6BGUE006.45, PCB, Arsenic and Mercury were detected in the fish tissue leading to a Fish Consumption partial support use assessment in 2002. This section is also a 'Water of Concern' for exceedances found from total phosphorus (TP) sediment data and benthic monitoring results at 6BGUE006.50. These results are reported as an 'Observed Effect' in the 2004 Integrated Report.

IMPAIRMENT SOURCE: Unknown

Guest River is densely settled along streambanks. The DEQ has helped fund construction of a regional sewage treatment plant, Coeburn Norton Wise STP. This has improved sewage treatment for the three towns however, inflow and infiltration in collector lines has not been completely corrected and there are many small communities which do not have public sewer. Elimination of failing septic systems and correction of inflow/infiltration problems are projects that are continuing to be pursued in the watershed.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Russell, Scott, Wise
STREAM NAME: Guest River
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P11R-10
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 4.07 - Miles
INITIAL LISTING: 2002
TMDL SCHEDULE: 2014
UPSTREAM LIMIT:

DESCRIPTION: Crab Orchard Creek confluence

RIVER MILE: 4.07

LATITUDE: 36.91139

LONGITUDE: -82.43611

DOWNSTREAM LIMIT:

DESCRIPTION: Clinch River

RIVER MILE: 0.00

LATITUDE: 36.87639

LONGITUDE: -82.40639

The segment includes the mainstem of Guest River from its confluence with Crab Orchard Creek to its confluence with the Clinch River. This segment flows through the Washington-Jefferson National Forest below the town of Coeburn. The tributaries that were associated with the 1998 TMDL have been listed separately for clarity.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform, e. Coli

USGS station shows fecal coliform violations. This section is also a 'Water of Concern' for exceedances found from total phosphorus (TP) data. These results are reported as an 'Observed Effect' in the 2004 Integrated Report.

IMPAIRMENT SOURCE: NPS - Septage

The sources for these exceedances may be land disposal and septage disposal.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Wise
STREAM NAME: Machine Creek
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P11R-11
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 2.18 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016
UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 3.16

LATITUDE: 36.90380

LONGITUDE: -82.57330

DOWNSTREAM LIMIT:

DESCRIPTION: Tributary confluence

RIVER MILE: 0.98

LATITUDE: 36.92200

LONGITUDE: -82.56100

Machine Creek is in the Jefferson National Forest. This stream flows from south to north and confluence with Guest River upstream of Tacoma. The upstream segment is defined as headwaters to an unnamed tributary.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

A forest service monitoring station on Machine Creek is impaired.

IMPAIRMENT SOURCE: Acid Rain deposition

Acid rain is the suspected source of low pH.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Scott, Wise
STREAM NAME: Bark Camp Branch
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P12R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 3.03 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016
UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 3.03

LATITUDE: 36.89770

LONGITUDE: -82.57470

DOWNSTREAM LIMIT:

DESCRIPTION: Stony Creek confluence

RIVER MILE: 0.00

LATITUDE: 36.87540

LONGITUDE: -82.57740

Bark Camp Branch is in the Glades Wildlife Management Area off of Route 890 in Wise County.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Forest Service Stations 9150 and 9153 had low scores for benthic communities.

IMPAIRMENT SOURCE: Acid Rain deposition

The source is unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Scott
STREAM NAME: Stock Creek
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P13R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 0.69 - Miles
INITIAL LISTING: 1998
TMDL SCHEDULE: 2006
UPSTREAM LIMIT:

DESCRIPTION: Stock Creek Impoundment

RIVER MILE: 5.22

LATITUDE: 36.72722

LONGITUDE: -82.75278

DOWNSTREAM LIMIT:

DESCRIPTION: Biological Monitoring Station

RIVER MILE: 4.53

LATITUDE: 36.71833

LONGITUDE: -82.75000

Stock Creek flows through Mabe and near Sunbright along Route 653 and 871 to the east of Duffield in Scott County. The TMDL segment is between Sunbright and Natural Tunnel State Park off of Route 871. The segment begins downstream of the impoundment near Cyprus Foote and Mineral.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Two biological monitoring station, 6BSTO0004.73, 6BSTO0005.26, are moderately impaired in the reach.

IMPAIRMENT SOURCE: Resource Extraction

This segment probably receives leachate or runoff from the Cyprus Foote and Mineral mine tailings. It is also groundwater influenced due to the limestone geology in the area and the prevalence of sinkholes.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Scott
STREAM NAME: Stock Creek
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P13R-02
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 4.53 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Biological Monitoring Station
RIVER MILE: 4.53
LATITUDE: 36.75170 **LONGITUDE:** -82.74230

DOWNSTREAM LIMIT:

DESCRIPTION: Clinch River confluence
RIVER MILE: 0.00
LATITUDE: 36.67490 **LONGITUDE:** -82.74470

Stock Creek flows through Mabe and near Sunbright along Route 653 and 871 to the east of Duffield in Scott County. The TMDL segment begins at the biological monitoring station and ends at the Clinch River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs

A biological monitoring station, 6BSTO0004.73 marks the upstream end of this reach. PCBs were detected in two species of fish, rainbow trout and brown trout.

IMPAIRMENT SOURCE: Unknown

The source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Scott
STREAM NAME: Copper Creek
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P14R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 4.07 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Obeys Creek confluence
RIVER MILE: 13.86
LATITUDE: 36.68120 **LONGITUDE:** -82.55490

DOWNSTREAM LIMIT:

DESCRIPTION: Lark Creek confluence
RIVER MILE: 9.79
LATITUDE: 36.66500 **LONGITUDE:** -82.61720

This segment of Copper Creek is defined at the confluence with Obeys Creek near the Route 72 and follows Route 627 downstream to Lark Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform, e. Coli

A USGS monitoring station, 03526000, has 2 bacteria violations in 4 samples.

IMPAIRMENT SOURCE: Unknown

The source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Scott
STREAM NAME: North Fork Clinch River
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P15R-00
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 5.58 - Miles
INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Cox Branch
RIVER MILE: 7.74
LATITUDE: 36.63000 **LONGITUDE:** -82.91306

DOWNSTREAM LIMIT:

DESCRIPTION: Tennessee State Line
RIVER MILE: 2.16
LATITUDE: 36.59361 **LONGITUDE:** -82.98500

This segment of North Fork Clinch River extends from its confluence with Cox Branch to the Tennessee State Line. The River segment is bracketed by the communities of Fairview and Dona.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

An ambient monitoring station, 6BNCC0-3.80, has fecal coliform violations in 2 of 15 samples.

IMPAIRMENT SOURCE: NPS - Agriculture

The source may be animal feeding operations.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Lee
STREAM NAME: East Fork Blackwater Creek
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P16R-00
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 1.82 - Miles
INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014
UPSTREAM LIMIT:

DESCRIPTION: North Fork Blackwater Creek confluence

RIVER MILE: 1.82

LATITUDE: 36.62833

LONGITUDE: -83.02500

DOWNSTREAM LIMIT:

DESCRIPTION: Blackwater Creek confluence

RIVER MILE: 0.00

LATITUDE: 36.61250

LONGITUDE: -83.04694

This segment of East Fork Blackwater Creek is near Blackwater on Route 70.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

A biological monitoring station, 6BBCE001.05, has been sampled three time and rated as moderately impaired.

IMPAIRMENT SOURCE: NPS - Agriculture

The source is unknown, however land uses are agricultural and may contribute to the impairment.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Lee
STREAM NAME: Blackwater Creek
HYDROLOGIC UNIT: 06010205
TMDL ID: VAS-P16R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 2.1 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016
UPSTREAM LIMIT:

DESCRIPTION: East Fork Blackwater Creek confluence
RIVER MILE: 8.2
LATITUDE: 36.61250 **LONGITUDE:** -83.04720

DOWNSTREAM LIMIT:

DESCRIPTION: Tennessee state line
RIVER MILE: 6.1
LATITUDE: 36.59400 **LONGITUDE:** -83.06730

This segment extends from the confluence with East Fork Blackwater Creek to the Tennessee state line. The stream parallels Route 70.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

An ambient water quality monitoring station at 6BBKW005.82 has 3 bacteria violations in 13 samples.

IMPAIRMENT SOURCE: Unknown

The source is unknown, however land uses are agricultural and may contribute to the impairment.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Wise
STREAM NAME: Callahan Creek
HYDROLOGIC UNIT: 06010206
TMDL ID: VAS-P17R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 1.68 - Miles
INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2006

UPSTREAM LIMIT:

DESCRIPTION: Preacher Creek confluence
RIVER MILE: 1.68
LATITUDE: 36.92472 **LONGITUDE:** -82.79750

DOWNSTREAM LIMIT:

DESCRIPTION: Powell River confluence
RIVER MILE: 0.00
LATITUDE: 36.90528 **LONGITUDE:** -82.78111

The segment begins at Andover at its confluence with Preacher Creek and follows Route 78 southeast to Appalachia where it meets the Powell River. This was a 1998 segment. Its length has changed based on River Reach file measurements.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Total Fecal Coliform (2004)

In 1995 there was a biological monitoring station, 6BCAL000.03, on Callahan Creek where the aquatic life use was rated as moderately impaired on 2 visits. Ambient water quality monitoring stations at 6BCAL000.03 and 6BCAL003.19 have bacteria violations in 5 of 9 and 3 of 4 samples respectively.

IMPAIRMENT SOURCE: Resource Extraction, Unknown

The source of benthic impairment may be surface mining and urban run off. Storm sewers may contribute to the bacteria violations.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Wise
STREAM NAME: Powell River
HYDROLOGIC UNIT: 06010206
TMDL ID: VAS-P17R-02
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 2.62 - Miles
INITIAL LISTING: 1994 **TMDL SCHEDULE:** 2006
UPSTREAM LIMIT:

DESCRIPTION: Roaring Branch confluence
RIVER MILE: 180.83
LATITUDE: 36.88389 **LONGITUDE:** -82.78750

DOWNSTREAM LIMIT:

DESCRIPTION: near Dakota Street, Big Stone Gap
RIVER MILE: 178.21
LATITUDE: 36.88389 **LONGITUDE:** -82.78750

The Powell River segment includes the town of Big Stone Gap from its upstream limits at Roaring Branch confluence to its downstream limits which are near the end of Dakota Street in Big Stone Gap. The segment miles have changed due to NHD data files.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform, General Standard (Benthic)

The Powell River ambient monitoring station, 6BPOW180.78, has violations of the fecal coliform water quality standard (11/41). A biological station at 6BPOW180.72 also shows moderate impairment in this reach. This section is also a 'Water of Concern' for exceedances found from total phosphorus (TP) data. These results are reported as an 'Observed Effect' in the 2004 Integrated Report.

IMPAIRMENT SOURCE: NPS - Urban, Unknown

The segment flows through Big Stone Gap where urban land uses are the suspected source of impairment.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Wise
STREAM NAME: Callahan Creek
HYDROLOGIC UNIT: 06010206
TMDL ID: VAS-P17R-04
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 3.44 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Possum Trot Hollow
RIVER MILE: 5.12
LATITUDE: 36.95580 **LONGITUDE:** -82.77890

DOWNSTREAM LIMIT:

DESCRIPTION: Preacher Creek confluence
RIVER MILE: 1.68
LATITUDE: 36.92472 **LONGITUDE:** -82.79750

The segment begins at Possum Trot Hollow on Route 600 above Stonega and ends at Andover at its confluence with Preacher Creek. This segment of Callahan Creek is above Appalachia.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

This segment has ambient water quality monitoring stations at 6BCAL000.03 and 6BCAL003.19 with 5 of 9 and 3 of 4 bacteria violations respectively.

IMPAIRMENT SOURCE: Unknown

The source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Wise
STREAM NAME: Dark Hollow
HYDROLOGIC UNIT: 06010206
TMDL ID: VAS-P17R-05
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 1.32 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016
UPSTREAM LIMIT:

DESCRIPTION: Headwaters
RIVER MILE: 1.32
LATITUDE: 36.89400 **LONGITUDE:** -82.76490

DOWNSTREAM LIMIT:

DESCRIPTION: Powell River
RIVER MILE: 0.00
LATITUDE: 36.88900 **LONGITUDE:** -82.78730

Dark Hollow drainage flows to Powell River between Appalachia and Big Stone Gap.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

This stream has a forest service biological monitoring station at 9113 with a low MAIS score for aquatic life.

IMPAIRMENT SOURCE: Acid Rain Deposition

The source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Wise
STREAM NAME: Roaring Branch
HYDROLOGIC UNIT: 06010206
TMDL ID: VAS-P17R-06
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 2.87 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016
UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 2.87

LATITUDE: 36.85610

LONGITUDE: -82.82620

DOWNSTREAM LIMIT:

DESCRIPTION: Powell River confluence

RIVER MILE: 0.00

LATITUDE: 36.88350

LONGITUDE: -82.78780

Roaring Branch flows from the west to the east to its confluence with Powell River. This segment is just above Big Stone Gap.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

This stream has a forest service biological monitoring station at 9106 with a low MAIS score for aquatic life.

IMPAIRMENT SOURCE: Acid Rain Deposition

The source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Wise
STREAM NAME: Big Cherry Lake
HYDROLOGIC UNIT: 06010206
TMDL ID: VAS-P18L-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 106 - Acres
INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Big Cherry headwaters
RIVER MILE: 15.71
LATITUDE: 36.86444 **LONGITUDE:** -82.67306

DOWNSTREAM LIMIT:

DESCRIPTION: Big Cherry Dam
RIVER MILE: 12.79
LATITUDE: 36.84667 **LONGITUDE:** -82.67167

The Lake is located off of Big Cherry Reservoir Road to the east of East Stone Gap.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH

Big Cherry was monitored in 1999 and 2000 at three stations 6BPLL012.79, 6BPLL012.99, 6BPLL013.59. Data shows there are low pH values throughout the lake and low DO values in the bottom layer.

IMPAIRMENT SOURCE: Natural Conditions

The source is due to natural lake processes.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Wise
STREAM NAME: South Fork Powell River
HYDROLOGIC UNIT: 06010206
TMDL ID: VAS-P18R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 5.61 - Miles
INITIAL LISTING: 1998
TMDL SCHEDULE: 2010
UPSTREAM LIMIT:

DESCRIPTION: Beaverdam Creek
RIVER MILE: 5.61
LATITUDE: 36.85950
LONGITUDE: -82.73150

DOWNSTREAM LIMIT:

DESCRIPTION: Powell River confluence
RIVER MILE: 0.00
LATITUDE: 36.87111
LONGITUDE: -82.74833

In 1998 this segment began at Butcher Fork confluence just to the south of Big Stone Gap and ended at the confluence with Powell River in Big Stone Gap. In 2004, the segment extends upstream an additional 1.9 miles to Beaverdam Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

The biological monitoring station at 6BPLL002.55 has moderate impairment rating in 1996 and not impaired rating in 1997. EPA added this segment to the 1998 TMDL list. In 2004, 6BPLL004.40, is rated moderately impaired, hence, the segment has been extended to include this second monitoring station. A station at 6BPLL004.49 was not impaired.

IMPAIRMENT SOURCE: Unknown

The source is unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Wise
STREAM NAME: Butcher Fork
HYDROLOGIC UNIT: 06010206
TMDL ID: VAS-P18R-02
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 4.85 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016
UPSTREAM LIMIT:

DESCRIPTION: Headwaters
RIVER MILE: 4.85
LATITUDE: 36.89600 **LONGITUDE:** -82.64230

DOWNSTREAM LIMIT:

DESCRIPTION: South Fork Powell River confluence
RIVER MILE: 0.00
LATITUDE: 36.87100 **LONGITUDE:** -82.74880

Butcher Fork extends from Valley Lake below Little Stone Gap to its confluence with South Fork Powell River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

The ambient water quality monitoring station at 6BBUH000.76 has 4 bacteria violations in 8 samples.

IMPAIRMENT SOURCE: Unknown

The source is unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Wise
STREAM NAME: South Fork Powell River
HYDROLOGIC UNIT: 06010206
TMDL ID: VAS-P18R-03
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 6.34 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Big Cherry Reservoir
RIVER MILE: 11.95
LATITUDE: 36.84600 **LONGITUDE:** -82.67110

DOWNSTREAM LIMIT:

DESCRIPTION: Beaverdam Creek confluence
RIVER MILE: 5.61
LATITUDE: 36.85950 **LONGITUDE:** -82.73150

This segment is the upper segment of South Fork Powell River. It begins at the Big Cherry Reservoir dam and extends to confluence with Beaverdam Creek just to the east of East Stone Gap.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

There is an ambient water quality monitoring station at 6BPLL06.38 with 6 bacteria violations in 18 samples. This section is also a 'Water of Concern' for exceedances found from biological monitoring data. These results are reported as an 'Observed Effect' in the 2004 Integrated Report.

IMPAIRMENT SOURCE: Unknown

The source is unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Lee
STREAM NAME: Powell River
HYDROLOGIC UNIT: 06010206
TMDL ID: VAS-P19R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 6.38 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Poor Valley Creek
RIVER MILE: 168.00
LATITUDE: 36.79480 **LONGITUDE:** -82.92010

DOWNSTREAM LIMIT:

DESCRIPTION: Upper end of Public Water Supply
RIVER MILE: 161.62
LATITUDE: 36.75970 **LONGITUDE:** -82.96270

This segment of Powell River begins at Poor Valley Creek above Dryden and extends to about 1.3 miles below Clear Spring Branch to a Public Water Supply boundary.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform, General Standard (Benthic)

There is an ambient water quality monitoring station located at 6BPOW165.78 with 5 bacteria violations in 46 samples. A biological monitoring station at 6BPWO166.92 is also impaired. This section is also a 'Water of Concern' for exceedances found from total phosphorus (TP) data. These results are reported as an 'Observed Effect' in the 2004 Integrated Report.

IMPAIRMENT SOURCE: Unknown, Unknown

The source is unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Lee
STREAM NAME: Lake Keokee
HYDROLOGIC UNIT: 06010206
TMDL ID: VAS-P20L-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 100 - Acres
INITIAL LISTING: 2002
TMDL SCHEDULE: 2014

UPSTREAM LIMIT:

DESCRIPTION: Keokee Backwaters
RIVER MILE: 25.31
LATITUDE: 36.85139
LONGITUDE: -82.85194

DOWNSTREAM LIMIT:

DESCRIPTION: Keokee Dam
RIVER MILE: 24.66
LATITUDE: 36.84528
LONGITUDE: -82.86694

Lake Keokee is on top of the Mountains and is located southeast of Keokee off Route 606 and 876.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE:

 Dissolved Oxygen, pH

Lake monitoring stations, 6BPWL024.64 and 6BPWL025.20 have both DO and pH violations. This segment includes the entire lake. A fish tissue station at 6BPWL025.32 indicates mercury in fish tissue in two species.

IMPAIRMENT SOURCE:

 Natural Conditions

The source is due to natural lake processes. However, the source of mercury is unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Lee
STREAM NAME: Puckett Creek
HYDROLOGIC UNIT: 06010206
TMDL ID: VAS-P20R-00
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 5.31 - Miles
INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2006

UPSTREAM LIMIT:

DESCRIPTION: headwaters
RIVER MILE: 5.31
LATITUDE: 36.79944 **LONGITUDE:** -83.09750

DOWNSTREAM LIMIT:

DESCRIPTION: Straight Creek confluence
RIVER MILE: 0.00
LATITUDE: 36.78139 **LONGITUDE:** -83.05750

Puckett Creek is a tributary to Straight Creek. It is near St. Charles. The entire length of Puckett Creek is included in this segment. This tributary was included in the 1996 and 1998 TMDL report.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

A special study contracted by Virginia Department of Mined Land Reclamation and USCOE indicates the pH in Puckett Creek does not violate water quality standards. The segment is not as impaired as previous information indicated in the 1998 303(d) report. Since one of the tributaries, Lick Branch, has pH violations, the segment is still listed as threatened this cycle.

IMPAIRMENT SOURCE: Resource Extraction, Acid Mine Drainage

Abandoned Mined Lands may be the major source for the acid mine drainage in the watershed.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Lee
STREAM NAME: North Fork Powell River
HYDROLOGIC UNIT: 06010206
TMDL ID: VAS-P20R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 6.03 - Miles
INITIAL LISTING: 1994 **TMDL SCHEDULE:** 2006

UPSTREAM LIMIT:

DESCRIPTION: Straight Creek confluence
RIVER MILE: 6.03
LATITUDE: 36.77694 **LONGITUDE:** -83.05111

DOWNSTREAM LIMIT:

DESCRIPTION: Powell River confluence
RIVER MILE: 0.00
LATITUDE: 36.73670 **LONGITUDE:** -82.99980

The segment includes mainstem of North Fork Powell River from the Straight Creek confluence near the community of Pocket to the confluence with Powell River. The North Fork Powell River flows through the town of Pennington Gap. The stream segment length is 2.31 miles longer than that listed on the 1998 TMDL list.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Total Fecal Coliform (2004)

Biological monitoring stations, 6BPWL005.46 and 6BPWL004.40, were rated moderately impaired in 1998. The biologist noted a high degree of embeddedness, moderate deposition and sub-optimal habitat diversity. In the 2002 assessment more recent benthic data results in a threatened designation. In 2002, a fish tissue station, 6BPWL001.62, had arsenic in the fish tissue. In 2004, an ambient water quality monitoring station at 6BPWL001.49 has 4 bacteria violations in 18 samples.

IMPAIRMENT SOURCE: Unknown, Residential

Urban nonpoint source runoff is the suspected cause of habitat impairment. Fecal coliform violations are also attributable to Urban sources. The source for arsenic in fish tissue is unknown. More study needs to be done to determine the sources.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Lee
STREAM NAME: Straight Creek
HYDROLOGIC UNIT: 06010206
TMDL ID: VAS-P20R-02
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 6.66 - Miles
INITIAL LISTING: 1996
TMDL SCHEDULE: 2006
UPSTREAM LIMIT:

DESCRIPTION: Straight Creek headwaters

RIVER MILE: 6.66

LATITUDE: 36.84889

LONGITUDE: -83.04139

DOWNSTREAM LIMIT:

DESCRIPTION: North Fork Powell River confluence

RIVER MILE: 0.00

LATITUDE: 36.77694

LONGITUDE: -83.05111

This segment includes the mainstem of Straight Creek from its headwaters north of Monarch to its confluence with North Fork Powell River. This stream flows through St. Charles. The mainstem of Straight Creek was listed on the 1994 TMDL report for fecal coliform violations and 1996 TMDL report for benthic impairment.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform, e.Coli, General Standard (Benthic)

Biological monitoring stations, 6BSTA000.11, 6BSRA000.4, 6BSRA000.54, 6BSRA001.10, 6BSRA002.48 and 6BSRA003.62 show that the stream is moderately impaired. The biologist notes that there is embeddedness and the streambank stability is poor. A special study station at 6BSRA001.34 had fish tissue data for PCB which exceeds the human health screening value. The ambient water quality monitoring station, 6BSRA001.11, has 7 bacteria violations for 17 samples. This section is also a 'Water of Concern' for exceedances found from total phosphorus (TP) and nickel in sediment data. These results are reported as an 'Observed Effect' in the 2004 Integrated Report.

IMPAIRMENT SOURCE: NPS - Urban, Resource Extraction

The source of the fecal coliform violations is historic raw sewerage discharges. In 2003, St. Charles STP will go off line and all sewerage is to be treated at the Pennington Gap STP. Part of this contract was also to provide public sewer to the upper reaches of the watershed. Coal mining and coal preparation plants in this watershed contribute to benthic impacts. There is acid mine drainage on tributaries to Straight Creek and abandoned mine sites which have adversely impacted aquatic habitat.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Lee
STREAM NAME: Stone Creek
HYDROLOGIC UNIT: 06010206
TMDL ID: VAS-P20R-03
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 10.08 - Miles
INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2004

UPSTREAM LIMIT:

DESCRIPTION: headwaters Stone Creek
RIVER MILE: 10.08
LATITUDE: 36.78000 **LONGITUDE:** -83.12833

DOWNSTREAM LIMIT:

DESCRIPTION: Straight Creek confluence
RIVER MILE: 0.00
LATITUDE: 36.77667 **LONGITUDE:** -83.05694

Stone Creek is outside of Pennington Gap. This segment begins at the confluence with Ely Creek and ends at its confluence with Straight Creek. This segment was included on the 1996 TMDL list as one of the Straight Creek tributaries. However, after acquisition of more data the segment has been shortened to exclude its headwaters.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Biological monitoring data at 6BSTC000.06, 6BSTC000.27, and 6BSTC003.27 rate this segment as moderately impaired for aquatic life uses.

IMPAIRMENT SOURCE: Resource Extraction, Acid Mine Drainage, NPS - Urban

Abandoned Mined Lands may be the major source for the acid mine drainage in the watershed. However, urban land uses also contribute to benthic impacts.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Lee
STREAM NAME: Baileys Trace
HYDROLOGIC UNIT: 06010206
TMDL ID: VAS-P20R-04
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 4.55 - Miles
INITIAL LISTING: 1996
TMDL SCHEDULE: 2006
UPSTREAM LIMIT:

DESCRIPTION: headwaters and tributaries

RIVER MILE: 4.55

LATITUDE: 36.82889

LONGITUDE: -83.09333

DOWNSTREAM LIMIT:

DESCRIPTION: Straight Creek confluence

RIVER MILE: 0.00

LATITUDE: 36.80417

LONGITUDE: -83.05639

The entire length of Baileys Trace is included in this segment. The stream is near the community of St. Charles and flows to Straight Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Biological monitoring station results on Straight Creek, 6BSRA000.40, and best professional judgement lead to inclusion of Baileys Trace on the 1996 303(d) report. In 2004, the segment is not impaired for aquatic life based on one sampling event September 1999.

IMPAIRMENT SOURCE: Resource Extraction

Resource Extraction and abandoned mine lands are the suspected sources for impairment. There is also a large number of homes in the watershed which may contribute to the benthic impairments. More data is needed to determine the water quality of this stream.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Lee
STREAM NAME: Ely Creek & tributaries
HYDROLOGIC UNIT: 06010206
TMDL ID: VAS-P20R-05
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 3.27 - Miles
INITIAL LISTING: 1996
TMDL SCHEDULE: 2006
UPSTREAM LIMIT:

DESCRIPTION: headwaters and tributaries

RIVER MILE: 3.27

LATITUDE: 36.79556

LONGITUDE: -83.10083

DOWNSTREAM LIMIT:

DESCRIPTION: Stone Creek confluence

RIVER MILE: 0.00

LATITUDE: 36.76861

LONGITUDE: -83.10000

Ely Creek is a tributary to Stone Creek, west of Pennington Gap. The segment includes Ely Creek and tributary streams, Bean Creek and Goose Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

A special study contracted by Virginia Department of Mined Land Reclamation verified that pH values are below the lower limit of water quality standards and benthics are impaired. Both chemical, physical and biological sampling points verify the impairments.

IMPAIRMENT SOURCE: Resource Extraction

Acid mine drainage is a problem in this stream. There are abandoned mine works and acid mine seeps. Iron precipitate is visible for most of the length including the Ely Creek confluence with Stone Creek. In 2003, funding from numerous sources enabled a wetland treatment facility to be constructed in this drainage. This should help improve water quality.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Lee
STREAM NAME: Gin Creek
HYDROLOGIC UNIT: 06010206
TMDL ID: VAS-P20R-06
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 2.61 - Miles
INITIAL LISTING: 1996
TMDL SCHEDULE: 2006
UPSTREAM LIMIT:

DESCRIPTION: headwaters and tributaries

RIVER MILE: 2.61

LATITUDE: 36.84861

LONGITUDE: -83.06889

DOWNSTREAM LIMIT:

DESCRIPTION: Straight Creek confluence

RIVER MILE: 0.00

LATITUDE: 36.81694

LONGITUDE: -83.04944

Gin Creek is a tributary to Straight Creek and is located above St. Charles in Lee County. The entire reach of the stream is included in this segment. This was part of the Straight Creek segment listed on the 1998 303(d) report.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Biological monitoring station results on Straight Creek, 6BSRA000.40, and best professional judgement lead to inclusion of Gin Creek on the 1996 303(d) report. No other data is available, therefore, the segment will remain on the 303(d) list. DCR ranks this watershed high for the potential for water quality impairment.

IMPAIRMENT SOURCE: Resource Extraction

Resource Extraction and urban communities along the stream are the probable sources for impairment.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Lee
STREAM NAME: Lick Branch
HYDROLOGIC UNIT: 06010206
TMDL ID: VAS-P20R-07
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 0.79 - Miles
INITIAL LISTING: 1996
TMDL SCHEDULE: 2006
UPSTREAM LIMIT:

DESCRIPTION: headwaters and tributaries

RIVER MILE: 0.79

LATITUDE: 36.79278

LONGITUDE: -83.08444

DOWNSTREAM LIMIT:

DESCRIPTION: Puckett Creek confluence

RIVER MILE: 0.00

LATITUDE: 36.78917

LONGITUDE: -83.07056

Lick Branch is a tributary to Puckett Creek and is located near St. Charles. The segment includes the entire length of the stream as well as any headwater tributaries. This segment was included in the 1996 TMDL list as part of Straight Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

A special study contracted by Virginia Department of Mined Land Reclamation and USCOE verified that pH values are below the lower limit of water quality standards. This segment was included in 1996 and 1998 TMDL lists as part of the Straight Creek segment based on a biological station on Straight Creek and best professional judgement.

IMPAIRMENT SOURCE: Resource Extraction

Abandoned Mined Lands may be the major source for the acid mine drainage in the watershed.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Lee
STREAM NAME: East and West Batie Creek
HYDROLOGIC UNIT: 06010206
TMDL ID: VAS-P21R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 0.85 - Miles
INITIAL LISTING: 1998
TMDL SCHEDULE: 2008
UPSTREAM LIMIT:

DESCRIPTION: West Batie Creek spring

RIVER MILE: 0.85

LATITUDE: 36.66750

LONGITUDE: -83.15667

DOWNSTREAM LIMIT:

DESCRIPTION: Powell River confluence

RIVER MILE: 0.00

LATITUDE: 36.65778

LONGITUDE: -83.15222

The segment includes both East Batie Creek and West Batie Creek. The two originate from cave or sinkhole openings and confluence at stream mile 0.7 to become Batie Creek. Batie Creek is also included in the segment to its confluence with Powell River. The headwaters are off of Route 662 in The Cedars section of Lee County, west of Jonesville.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen

The creek has been monitored as part of a special study with biological monitoring results indicating that the creek is severely impacted. Dissolved oxygen profiles on this stream also show a violation of stream standards.

IMPAIRMENT SOURCE: NPS - Solid Waste

This region of Lee County, known as The Cedars, is a karst area. The source of dissolved oxygen violations is nonpoint related. U.S. Fish and Wildlife, along with partners, are funding a project to reduce the amount of sawdust at a sawmill by using it as a soil amendment to clean the sawmill sinkhole of the sawdust.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Lee
STREAM NAME: Wallen Creek
HYDROLOGIC UNIT: 06010206
TMDL ID: VAS-P22R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 2.03 - Miles
INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Lone Branch confluence
RIVER MILE: 2.03
LATITUDE: 36.61530 **LONGITUDE:** -83.17680

DOWNSTREAM LIMIT:

DESCRIPTION: Powell River confluence
RIVER MILE: 0.00
LATITUDE: 36.63420 **LONGITUDE:** -83.17278

This segment of Wallen Creek runs from the confluence with Lone Branch near Route 612 to the confluence with Powell River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

There is a biological monitoring station, 6BWAL001.57, with inconclusive data. The reports fluctuate between not impaired and moderately impaired. In 1999 and 2000 the biologist rated this station slightly impaired. The current assessment (2004) rates the segment as fully supporting the aquatic life use.

IMPAIRMENT SOURCE: NPS - Agriculture

The source is probably forestry and agriculture. DCR recognizes agriculture and forestry as landuses of potential impact in the watershed. More data is needed to determine the water quality in this stream.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Lee
STREAM NAME: Powell River
HYDROLOGIC UNIT: 06010206
TMDL ID: VAS-P23R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 8.42 - Miles
INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Hardy Creek confluence
RIVER MILE: 127.50
LATITUDE: 36.64278 **LONGITUDE:** -83.24028

DOWNSTREAM LIMIT:

DESCRIPTION: Yellow Creek confluence
RIVER MILE: 119.08
LATITUDE: 36.61611 **LONGITUDE:** -83.29806

Powell River flows through Lee County. This segment begins at Hardy Creek and ends at Yellow Creek near Route 661 above the Tennessee State Line.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

A biological monitoring station 6BPOW120.12, show moderate impairment.

IMPAIRMENT SOURCE: Unknown

The source for impairment is unknown. The impairment may be agricultural as this is the most prevalent landuse.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Buchanan
STREAM NAME: PawPaw Creek
HYDROLOGIC UNIT: 05070201
TMDL ID: VAS-Q03R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 4.52 - Miles
INITIAL LISTING: 1994
TMDL SCHEDULE: 2006
UPSTREAM LIMIT:

DESCRIPTION: Kentucky State line
RIVER MILE: 4.52
LATITUDE: 37.42833
LONGITUDE: -82.12417

DOWNSTREAM LIMIT:

DESCRIPTION: Knox Creek confluence
RIVER MILE: 0.00
LATITUDE: 37.44722
LONGITUDE: -82.05833

This segment includes the entire length of PawPaw Creek from the Kentucky State line to its confluence with Knox Creek. It is located along Route 643 north of Grundy.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

PawPaw Creek has been identified as not supporting aquatic life uses based on a RPB2 protocol at station 6APPW000.60 in 1992. It was rated severely impaired overall. There is habitat impairment.

IMPAIRMENT SOURCE: Resource Extraction

There have been NPDES dischargers from coal mining in the watershed. It is believed that this may be the source for habitat degradation. More monitoring is necessary to determine if this segment continues to be impaired.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Buchanan
STREAM NAME: Knox Creek
HYDROLOGIC UNIT: 05070201
TMDL ID: VAS-Q03R-02
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 16.94 - Miles
INITIAL LISTING: 1996
TMDL SCHEDULE: 2006
UPSTREAM LIMIT:

DESCRIPTION: headwaters

RIVER MILE: 26.11

LATITUDE: 37.33722

LONGITUDE: -81.91389

DOWNSTREAM LIMIT:

DESCRIPTION: Kentucky State Line

RIVER MILE: 9.17

LATITUDE: 37.47111

LONGITUDE: -82.06417

The mainstem of Knox Creek from its headwaters to the Kentucky State line. The stream runs through Hurley and Keels in Buchanan County.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting, Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Total Fecal Coliform, Fish Tissue - PCBs

A benthic station previously sampled indicated this stream is moderately impaired. Because there is no recent sampling data, this stream remains on the TMDL list. An ambient water quality monitoring station at 6AKOX008.11 has 12 bacteria violations in 27 samples and another station at 6AKOX014.17 has 3 bacteria violations in 9 samples. PCB concentrations in three fish species fish tissue at 6AKOX008.11 results in failure to meet the fish consumption use.

IMPAIRMENT SOURCE: Resource Extraction, NPS - Urban, Unknown

Coal mining extraction in this watershed, as well as densely populated urban use and activities, have contributed to the degraded habitat.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Buchanan
STREAM NAME: Guess Fork
HYDROLOGIC UNIT: 05070201
TMDL ID: VAS-Q03R-03
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 8.41 - Miles
INITIAL LISTING: 2004
TMDL SCHEDULE: 2016
UPSTREAM LIMIT:

DESCRIPTION: headwaters

RIVER MILE: 8.41

LATITUDE: 37.39870

LONGITUDE: -81.93180

DOWNSTREAM LIMIT:

DESCRIPTION: Knox Creek confluence

RIVER MILE: 0.00

LATITUDE: 37.43540

LONGITUDE: -82.03230

The entire stream reach is included in this segment, extending from headwaters to confluence with Knox Creek in Buchanan County.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

A ambient water quality monitoring station, 6AGIE000.04 has 4 bacteria violations out of 9 samples.

IMPAIRMENT SOURCE: Municipal

A densely populated valley community may be the source of the bacteria violations.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Buchanan
STREAM NAME: Levisa Fork River
HYDROLOGIC UNIT: 05070202
TMDL ID: VAS-Q04R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 3.96 - Miles
INITIAL LISTING: 1994 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Garden Creek confluence with Levisa
RIVER MILE: 155.94
LATITUDE: 37.21250 **LONGITUDE:** -82.00639

DOWNSTREAM LIMIT:

DESCRIPTION: Dismal Creek confluence with Levisa
RIVER MILE: 151.98
LATITUDE: 37.23333 **LONGITUDE:** -82.04417

The segment is delineated by the major streams which join Levisa River. The confluence with Garden Creek marks the upstream boundary of the segment and downstream confluence with Dismal Creek marks the end of the segment.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Fish Consumption Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), Fish Tissue - PCBs, Total Fecal Coliform (2004)

The biological monitoring station, 6ALEV151.90, has not been sampled in over 5 years. However, there is no other data to suggest the situation has changed since this segment was listed. Benthic data indicates the habitat is poor due to stream embeddedness, lack of canopy and poor bank stability. Of the four sampling efforts in this segment, three were rated moderately impaired and one, December 1991, was rated severely impaired. It is recommended that monitoring should be undertaken to verify impairment. PCB was detected at a fish tissue station 6ALEV151.26. Ambient water quality monitoring stations, 6ALEV152.46 and 6ALEV156.82 both have bacteria violations, 9 of 24 and 3 of 9 respectively.

IMPAIRMENT SOURCE: Resource Extraction, NPS - Urban, Unknown

The source is due to coal mining activities and riparian zone modification. Riparian zone modification is a result of urban uses within the stream corridor. Sources for bacteria violations are unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Buchanan
STREAM NAME: Garden Creek
HYDROLOGIC UNIT: 05070202
TMDL ID: VAS-Q04R-02
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 1.82 - Miles
INITIAL LISTING: 1998
TMDL SCHEDULE: 2008
UPSTREAM LIMIT:

DESCRIPTION: Right Fork confluence

RIVER MILE: 1.82

LATITUDE: 37.18889

LONGITUDE: -82.00444

DOWNSTREAM LIMIT:

DESCRIPTION: Levisa Fork River confluence

RIVER MILE: 0.00

LATITUDE: 37.21222

LONGITUDE: -82.00639

This includes a segment of Garden Creek from its confluence with Right Fork to the confluence with Levisa Fork River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform, General Standard (Benthic)

An ambient water quality monitoring station at 6AGAR000.16 has 17 bacteria violations in 29 samples. PCBs were detected in fish tissue. Recent biological assessments indicate that there is an improvement in the severity of benthic impairment so that the segment has moderate impairment. The last three assessments have been moderately impaired at station 6AGAR000.16. This section is also a 'Water of Concern' for exceedances found from PCB and habitat assessment data. These results are reported as an 'Observed Effect' in the 2004 Integrated Report.

IMPAIRMENT SOURCE: NPS - Urban, Habitat Alteration

Land uses in the watershed, resource extraction and dense population settlement along the stream, contribute to these violations.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Buchanan
STREAM NAME: Levisa Fork River
HYDROLOGIC UNIT: 05070202
TMDL ID: VAS-Q04R-03
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 9.85 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016
UPSTREAM LIMIT:

DESCRIPTION: Headwaters Levisa Fork River

RIVER MILE: 165.79

LATITUDE: 37.14620

LONGITUDE: -81.89970

DOWNSTREAM LIMIT:

DESCRIPTION: Garden Creek confluence

RIVER MILE: 155.94

LATITUDE: 37.21250

LONGITUDE: -82.00639

This segment extends from the headwaters of Levisa Fork River in Buchanan County to its confluence with Garden Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

An ambient water quality monitoring station at 6ALEV156.82 has 3 bacteria violations in 9 samples.

IMPAIRMENT SOURCE: Unknown

The source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Buchanan
STREAM NAME: Levisa Fork River
HYDROLOGIC UNIT: 05070202
TMDL ID: VAS-Q06R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 8.08 - Miles
INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Dismal Creek confluence
RIVER MILE: 151.84
LATITUDE: 37.23333 **LONGITUDE:** -82.04389

DOWNSTREAM LIMIT:

DESCRIPTION: Slate Creek confluence
RIVER MILE: 143.76
LATITUDE: 37.27833 **LONGITUDE:** -82.10111

This segment of Levisa Fork River includes the mainstem from its confluence with Dismal Creek on Route 460 to confluence with Slate Creek in Grundy.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Fish Consumption Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), General Standard (Fish Tissue-PCB), Total Fecal Coliform (2004)

The sediment analysis at ambient water quality monitoring station 6ALEV143.86 has effect range - median (ER-M) value exceedences for nickel. 6ALEV143.80 is a biological monitoring station in this reach with moderate impairment ratings. PCB was detected in the fish tissue of 3 species at station 6ALEV145.86 and in one species at 6ALEV151.26. Additionally an ambient water quality monitoring station at 6ALEV143.86 has 5 bacteria violations in 38 samples. This section is also a 'Water of Concern' for exceedences found from habitat assessment data. These results are reported as an 'Observed Effect' in the 2004 Integrated Report.

IMPAIRMENT SOURCE: Unknown, Unknown, Municipal

Metal sources are unknown. However, resource extraction of coal is the predominant land use in this watershed. Nickel may be due to either urban nonpoint sources or resource extraction. More research is recommended to identify a source for both nickel and PCB. Levisa Fork River flows through a dense municipal region which may account for bacteria violations.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Buchanan
STREAM NAME: Slate Creek
HYDROLOGIC UNIT: 05070202
TMDL ID: VAS-Q07R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 9.08 - Miles
INITIAL LISTING: 1994 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Upper Rock House Branch confluence
RIVER MILE: 9.08
LATITUDE: 37.31810 **LONGITUDE:** -81.98060

DOWNSTREAM LIMIT:

DESCRIPTION: Levisa Fork confluence
RIVER MILE: 0.00
LATITUDE: 37.27861 **LONGITUDE:** -82.10083

This stream lies parallel with Route 83 and is delineated by its upstream confluence with Upper Rock House Branch, downstream to the mouth of the stream at Levisa Fork River. This segment is longer because of extension of upper limit from special study in 1998.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE:

 General Standard (Benthic), Total Fecal Coliform

Special Study biological monitoring stations, 6ASAT000.00, 6ASAT000.05, 6ASAT004.52, and 6ASAT007.71 were all moderately impaired in June 1998. Thus the segment has been extended from Elkins Branch upstream to Upper Rock House Branch. An ambient station, 6ASAT000.03, fecal coliform data shows violations 6 of 18 samples.

IMPAIRMENT SOURCE:

 NPS - Urban, NPS - Urban

The area has been mined for coal and the housing situation is typically dense on the floodplain. Abrupt elevation changes from narrow floodways to steep mountains is typical in the watershed. This increases urban impacts to the stream.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Buchanan
STREAM NAME: Bull Creek & Tributaries
HYDROLOGIC UNIT: 05070202
TMDL ID: VAS-Q08R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 16.87 - Miles
INITIAL LISTING: 1998
TMDL SCHEDULE: 2008
UPSTREAM LIMIT:

DESCRIPTION: Bull Creek headwaters

RIVER MILE: 5.38

LATITUDE: 37.29222

LONGITUDE: -82.21889

DOWNSTREAM LIMIT:

DESCRIPTION: Levisa Fork River confluence

RIVER MILE: 0.00

LATITUDE: 37.31250

LONGITUDE: -82.16639

The segment of Bull Creek includes its entire length and all tributaries; Belcher Branch, Deel Fork, Burnt Poplar Fork, Big Branch, Starr Branch, Jess Fork, and Convict Hollow. Bull Creek confluences with Levisa Fork River. Bull Creek is 5.38 miles long. The remainder of the 16.9 mile segment extends to include the tributaries to Bull Creek based on the new NHD data.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

The biological monitoring station, 6ABLC002.3, sample results yield a severe impaired rating. The biologist noted that land use in this watershed was mining and forest. He also noted that trash was in the stream.

IMPAIRMENT SOURCE: Resource Extraction

Land uses indicate that resource extraction is the source of impairment.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Buchanan
STREAM NAME: Levisa Fork River
HYDROLOGIC UNIT: 05070202
TMDL ID: VAS-Q08R-02
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 2.66 - Miles
INITIAL LISTING: 2002
TMDL SCHEDULE: 2010
UPSTREAM LIMIT:

DESCRIPTION: Rocklick Creek confluence
RIVER MILE: 132.66
LATITUDE: 37.35528
LONGITUDE: -82.18972

DOWNSTREAM LIMIT:

DESCRIPTION: Kentucky State line
RIVER MILE: 130.00
LATITUDE: 37.36361
LONGITUDE: -82.21750

This segment begins at the confluence with Rocklick Creek near Route 645, northeast of Weller and ends at the state line.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Fish Consumption Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic), VDH Fish Consumption (PCB), Total Fecal Coliform (2004)

A biological station, 6ALEV130.29 is moderately impaired. This segment has been extended. Virginia Department of Health has posted a twelve miles segment for fish consumption due to PCB in fish tissue at stations 6ALEV134.82 and 6ALEV130.00. The fish consumption segment extends to an adjacent segment. Arsenic was also found in fish tissue. There was DDT detected in sediments. DDT and PCBs are observed effects. An ambient water quality monitoring station 6ALEV131.52 has 10 bacteria violations in 56 samples.

IMPAIRMENT SOURCE: Resource Extraction, Unknown, Municipal Density

Resource extraction, high population density and urban activities are probably sources of these concerns. The PCB source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Buchanan
STREAM NAME: Levisa Fork River
HYDROLOGIC UNIT: 05070202
TMDL ID: VAS-Q08R-03
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 9.35 - Miles
INITIAL LISTING: 2002
TMDL SCHEDULE: 2014
UPSTREAM LIMIT:

DESCRIPTION: River Mile 142.00
RIVER MILE: 142.00
LATITUDE: 37.29028
LONGITUDE: -82.12639

DOWNSTREAM LIMIT:

DESCRIPTION: Rocklick Creek confluence
RIVER MILE: 132.66
LATITUDE: 37.35528
LONGITUDE: -82.18972

The Fish Consumption segment is 12 miles long. It extends from Grundy, just upstream of confluence with Six and Twenty Mile Creek downstream to Rocklick Branch.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs

PCB in Fish Tissue at a special monitoring station, 6ALEV130.00, is the cause of impairment. This sample was in 1997. This section is a 'Water of Concern' for exceedances found from PCBs data. These results are reported as an 'Observed Effect' in the 2004 Integrated Report.

IMPAIRMENT SOURCE: Unknown

The source of PCB contamination is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Buchanan
STREAM NAME: Russell Fork
HYDROLOGIC UNIT: 05070202
TMDL ID: VAS-Q09R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 8.66 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016
UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 49.48

LATITUDE: 37.05820

LONGITUDE: -82.04300

DOWNSTREAM LIMIT:

DESCRIPTION: Hollow Poplar Branch confluence

RIVER MILE: 40.82

LATITUDE: 37.10950

LONGITUDE: -82.15660

This headwater segment extends to confluence with Hollow Poplar Branch downstream of Davenport.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform, e. Coli

The ambient water quality monitoring station at 6ARSS41.08 has 2 bacteria violations in 10 samples and 6ARSS047.10 has 4 bacteria violations in 20 samples.

IMPAIRMENT SOURCE: Unknown

Sources are unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Dickenson
STREAM NAME: McClure River
HYDROLOGIC UNIT: 05070202
TMDL ID: VAS-Q11R-02
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 10.03 - Miles
INITIAL LISTING: 2004
TMDL SCHEDULE: 2016

UPSTREAM LIMIT:

DESCRIPTION: Caney Creek confluence
RIVER MILE: 14.08
LATITUDE: 37.10778
LONGITUDE: -82.37972

DOWNSTREAM LIMIT:

DESCRIPTION: Road Branch confluence
RIVER MILE: 4.05
LATITUDE: 37.18230
LONGITUDE: -82.33670

This segment begins at the confluence with Caney Creek near McClure and extends downstream along Route 63 to Road Branch near the community of Steinman.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Total Fecal Coliform

The ambient water quality monitoring station, 6AMCR007.46, on Route 781 in Clinchco has 3 bacteria violations in 17 samples. This segment plus a downstream segment which ended at the Russell Fork River confluence was listed in 1994 for not supporting the swimmable use. In August 2002, the reach was delisted because data did not violate the standard. However, in the 2004 assessment, there are violations at the upstream station and the downstream station has no violations. The segment is listed again for the upper reach but not for the lower reach, based on data at 6AMCR000.2, where there are no violations of the bacteria standard. Biological stations, 6AMCR000.55 and 6AMCR000.2, are not impaired.

IMPAIRMENT SOURCE: NPS - Urban

Land uses include coal mining, forestry and dense population settlement along the floodways. Fecal coliform violations were probably attributable to urban sources.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Buchanan, Dickenson
STREAM NAME: Russell Prater Creek
HYDROLOGIC UNIT: 05070202
TMDL ID: VAS-Q12R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 11.27 - Miles
INITIAL LISTING: 1996
TMDL SCHEDULE: 2010
UPSTREAM LIMIT:

DESCRIPTION: Headwaters at Poplar Gap

RIVER MILE: 11.27

LATITUDE: 37.24278

LONGITUDE: -82.15694

DOWNSTREAM LIMIT:

DESCRIPTION: Russell Fork confluence

RIVER MILE: 0.00

LATITUDE: 37.20417

LONGITUDE: -82.29194

Russell Prater mainstem is located along Route 83 east of Haysi and includes the length of the creek from its headwaters near Poplar Gap to its mouth at the confluence with Russell Fork.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

The segment is designated due to biological monitoring stations, 6ARPC000.80 and 6ARPC000.52. There were two samples taken in the last 5 year cycle, one sample taken in 1999, that indicated moderate impairment. The biologist observed coal mining activity and habitat degradation.

IMPAIRMENT SOURCE: Resource Extraction

The source of impairment is resource extraction. There is significant coal mining land use in this watershed which may have resulted in aquatic habitat impacts.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Dickenson
STREAM NAME: Russell Fork River
HYDROLOGIC UNIT: 05070202
TMDL ID: VAS-Q12R-02
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 3.96 - Miles
INITIAL LISTING: 2002
TMDL SCHEDULE: 2014
UPSTREAM LIMIT:

DESCRIPTION: McClure River confluence

RIVER MILE: 25.43

LATITUDE: 37.20500

LONGITUDE: -82.29528

DOWNSTREAM LIMIT:

DESCRIPTION: Pound River confluence

RIVER MILE: 21.64

LATITUDE: 37.24278

LONGITUDE: -82.32000

This segment on Russell Fork River is defined by its confluence with McClure River to the Pound River confluence. This segment is downstream of the Town of Haysi.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs

In 1997 special study station, 6ARSS025.55, had fish tissue PCB exceedences of the human health screening values in four fish species. Although this date is earlier than the 2004 assessment cycle, there is no current data to suggest this can be removed from the TMDL list.

IMPAIRMENT SOURCE: Unknown

The source of PCB is unknown. A study should be conducted to determine the extent and source of this contaminant.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Dickenson
STREAM NAME: John Flannagan Reservoir
HYDROLOGIC UNIT: 05070202
TMDL ID: VAS-Q13L-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 1143 - Acres
INITIAL LISTING: 2002
TMDL SCHEDULE: 2014
UPSTREAM LIMIT:

DESCRIPTION: Pound River arm of Flannagan Dam headwaters

RIVER MILE: 8.00

LATITUDE: 37.02111

LONGITUDE: -82.40528

DOWNSTREAM LIMIT:

DESCRIPTION: Flannagan Dam

RIVER MILE: 0.00

LATITUDE: 37.23306

LONGITUDE: -82.34500

Flannagan Reservoir is northeast of Clintwood and includes the confluence of Pound River and Cranesnest River. The segment includes the entire lake.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen

Lake monitoring stations at 6ACNR001.03-BL, 6APNR001.82-TL,BL and 6APNR007.67-BL have low DO values. Special fish tissue station at 6APNR002.15 had Aldrin and arsenic detected. In 2002 only the Cranesnest arm of Flannagan Reservoir was listed however, with additional data, the entire Reservoir is now included in this segment.

IMPAIRMENT SOURCE: Natural Conditions

The source is due to natural lake processes.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Wise
STREAM NAME: North Fork Pound Reservoir
HYDROLOGIC UNIT: 05070202
TMDL ID: VAS-Q13L-02
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 154 - Acres
INITIAL LISTING: 2004
TMDL SCHEDULE: 2016
UPSTREAM LIMIT:

DESCRIPTION: Headwaters North Fork Pound Reservoir

RIVER MILE:

LATITUDE: 37.10410

LONGITUDE: -82.67340

DOWNSTREAM LIMIT:

DESCRIPTION: North Fork Pound Dam

RIVER MILE:

LATITUDE: 37.12530

LONGITUDE: -82.62990

This reservoir is to the east of Pound in Wise County.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen

Bottom layer of lake monitoring stations 6APNK002.08-BL, 6APNK001.26-BL and 6APNK001.87-BL have dissolved oxygen violations.

IMPAIRMENT SOURCE: Natural Conditions

The source is due to natural lake processes.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Wise
STREAM NAME: South Fork Pound River
HYDROLOGIC UNIT: 05070202
TMDL ID: VAS-Q13R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 6.53 - Miles
INITIAL LISTING: 1994
TMDL SCHEDULE: 2008
UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 6.53

LATITUDE: 37.06190

LONGITUDE: -82.69820

DOWNSTREAM LIMIT:

DESCRIPTION: Pound River confluence

RIVER MILE: 0.00

LATITUDE: 37.12306

LONGITUDE: -82.61306

The mainstem of the River from headwater streams Phillips and Donald Creeks to confluence with the Pound River. This segment includes a portion of the town of Pound.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Biological monitoring station, 6APNS000.40, data ranks this site moderately impaired or severely impaired for six visits. Five most recent sample efforts 1997, 1998 and 1999 were rated moderately impaired. Low density of organisms is cited as the reason for severe impairment which put it on the 1994 TMDL list. In 1999 the biological monitoring station 6APNS004.98 is also moderately impaired and 6APNS008.73 is severely impaired. This section (ADB segment PNS01A02) is also a 'Water of Concern' for exceedances found from nickel data. These results are reported as an 'Observed Effect' in the 2004 Integrated Report.

IMPAIRMENT SOURCE: Resource Extraction

Sources for benthic impairment may be due to acid mine drainage from coal mining and municipal inputs.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Wise
STREAM NAME: North Fork Pound River
HYDROLOGIC UNIT: 05070202
TMDL ID: VAS-Q13R-02
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 1.11 - Miles
INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2008

UPSTREAM LIMIT:

DESCRIPTION: North Fork Pound Lake impoundment
RIVER MILE: 1.11
LATITUDE: 37.12556 **LONGITUDE:** -82.62972

DOWNSTREAM LIMIT:

DESCRIPTION: Pound River confluence
RIVER MILE: 0.00
LATITUDE: 37.12306 **LONGITUDE:** -82.61306

The North Fork Pound River mainstem from downstream of the North Fork Pound Lake impoundment to the confluence with Pound River are included in this segment. The North Fork and South Fork of Pound River confluence to form the Pound River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Biological monitoring results, 6APNK000.08, indicate that the stream is moderately impaired. These results include a low EPT index and moderate taxa richness scores.

IMPAIRMENT SOURCE: NPS - Urban

The source of impairment is urban. However, a secondary source may be habitat degradation due to the lake discharge being withdrawn from the bottom lake layer.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Wise
STREAM NAME: Donald Branch
HYDROLOGIC UNIT: 05070202
TMDL ID: VAS-Q13R-04
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 1.87 - Miles
INITIAL LISTING: 2002
TMDL SCHEDULE: 2014
UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 1.87

LATITUDE: 37.04778

LONGITUDE: -82.72083

DOWNSTREAM LIMIT:

DESCRIPTION: South Fork Pound River confluence

RIVER MILE: 0.00

LATITUDE: 37.06306

LONGITUDE: -82.69806

This segment includes Donald Branch which is a headwater stream to South Fork Pound River. It begins in the mountain and confluences with Phillips Creek to form South Fork Pound River. Route 627 follows Phillips Creek to its origins just to the south of Flat Gap west of Pound, Virginia.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

There is a biological station at 6APNS008.73 with data that rates the headwaters as severely impaired.

IMPAIRMENT SOURCE: Resource Extraction

The source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Wise
STREAM NAME: Phillips Creek
HYDROLOGIC UNIT: 05070202
TMDL ID: VAS-Q13R-04
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 2.14 - Miles
INITIAL LISTING: 2002
TMDL SCHEDULE: 2014
UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 2.14

LATITUDE: 37.03583

LONGITUDE: -82.70944

DOWNSTREAM LIMIT:

DESCRIPTION: South Fork Pound River confluence

RIVER MILE: 0.00

LATITUDE: 37.06306

LONGITUDE: -82.69806

This segment includes Phillips Creek which is a headwater stream to South Fork Pound River. It begins in the mountain and confluences with Donald Branch to form South Fork Pound River. Route 627 follows Phillips Creek to its origins just to the south of Flat Gap west of Pound, Virginia.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

There is a biological station at 6APNS008.73 with data that rates the headwaters as severely impaired.

IMPAIRMENT SOURCE: Resource Extraction

The source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Dickenson, Wise
STREAM NAME: Pound River
HYDROLOGIC UNIT: 05070202
TMDL ID: VAS-Q13R-06
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 16.6 - Miles
INITIAL LISTING: 2004
TMDL SCHEDULE: 2016
UPSTREAM LIMIT:

DESCRIPTION: North and South Fork Pound Rivers confluence

RIVER MILE: 35.66

LATITUDE: 37.12370

LONGITUDE: -82.61310

DOWNSTREAM LIMIT:

DESCRIPTION: Georges Fork confluence

RIVER MILE: 19.06

LATITUDE: 37.18100

LONGITUDE: -82.48290

Pound River segment begins at the confluence with South Fork Pound River and North Fork Pound River in Pound and extends downstream to Georges Fork confluence. This segment parallels Route 631 flowing through the community of Norland.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

In 1999 a sample at biological monitoring station, 6APNR028.76 was rated moderately impaired. Nickel exceedences of the sediment screening value are an observed effect.

IMPAIRMENT SOURCE: Unknown

The source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Tennessee/Big Sandy River Basins
CITY/COUNTY: Dickenson, Scott
STREAM NAME: Cranesnest River
HYDROLOGIC UNIT: 05070202
TMDL ID: VAS-Q14R-01
ASSESSMENT CATEGORY: 5A
SEGMENT SIZE: 8.66 - Miles
INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Honeycamp Branch confluence
RIVER MILE: 15.28
LATITUDE: 37.11640 **LONGITUDE:** -82.46180

DOWNSTREAM LIMIT:

DESCRIPTION: Bartley Branch confluence
RIVER MILE: 6.62
LATITUDE: 37.17040 **LONGITUDE:** -82.40590

The Cranes Nest River segment extends from Honeycamp Branch, just downstream of Darwin to Bartley Branch northeast of Clintwood. The river flows near Route 693.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE:

 Escherichia coli (e.coli)

The station 6ACNR009.17 has 2 violations of the e.coli standard in 5 samples.

IMPAIRMENT SOURCE:

 Unknown

The source is unknown.